

mWater Surveyor Portal Manual

For Administrators and Managers

Version 1.0



Mobile technology for water, sanitation and health

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Foreword

mWater is a nonprofit tech startup that uses technology and data to address gaps in infrastructure. mWater works primarily with local authorities to strengthen water and sanitation services. The organization aims to create sustainable, stand-alone, capacity-building measures that allow children to survive childhood and lead healthy and productive lives. We believe paper is where data goes to die. Paper-based data *dies* when it stagnates, lying in stacks on desks and in file cabinets without ever being read or analyzed. Digital data is more actionable because it is more easily accessed and processed with devices that managers interact with every day. Actionable data enables the creation of data-driven policies. Data-driven public policies have the potential to increase the capacity of local actors who share the common goal of saving lives, facilitate multi-sectoral collaboration, improve service delivery and improve current and emerging monitoring and evaluation.

The mWater suite of tools includes mWater Surveyor, mWater Mapper and mWater Pathfinder. Together, these apps and web platforms use GPS, cloud-based computing and widespread access to mobile devices to create an integrated approach to managing water and sanitation. Taken together, these methods will measure how well we serve the monitoring needs of both our supported and unsupported users and the improvements in water source quality over time. This manual was created for the mWater Surveyor Portal, which allows administrators and managers to create and deploy surveys as well as to view, approve and export incoming data. A separate manual is available for enumerators who will be using the mWater Surveyor App to collect the survey data on mobile devices. More information is available at www.mWater.org.

Water and sanitation represent the cornerstone of health and well-being for communities around the world. Waterborne disease is the second leading cause of death for children aged 0-5 and a leading indicator of the first leading cause of death, lung infection. For the children who survive it, waterborne disease causes stunting and lifelong disability. This suite of software tools is mWater's opportunity to prevent waterborne disease and its cycle of impacts on communities. Thank you for using our products and thank you for helping end waterborne disease.

Glossary

Answer: The information that will be gathered for each question. Some questions will have a set list of answers, while other answers may be text, numbers or other types of data.

Deployment: A single instance of a form being provided to a group of **Enumerators** who will be conducting the survey. A single form can have many deployments to different groups and the data from each can be viewed separately.

Dropdown: a type of data entry field where the user clicks (or touches) on a box to select from a longer list of options.

Enumerator: The person who conducts the survey in the field. In mWater, each Enumerator is a user with a unique mWater account, which they may access from multiple devices.

Form: A list of **Questions** that will be asked in the survey. Questions are organized into **Sections** and may have **Conditions** set that determine whether or not they should be displayed during a survey, based on previous answers.

Health Facility: A public or private facility where health services are provided.

Hover: to hold the mouse cursor over a particular spot on the screen.

Household: A single-family dwelling.

Response: A complete set of all answers to a form, as submitted by a user in the field.

Sanitation Facility: A facility or location for capturing human excreta.

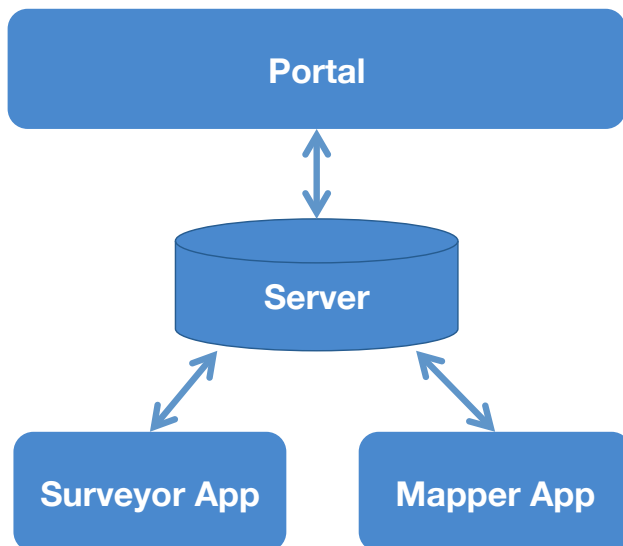
School: An educational or learning facility that serves students of any age.

Water Point: A source or access point of water for drinking or domestic purposes.

1. Overview of mWater Surveyor

Surveyor is an online and mobile software platform that allows organizations to map sites such as water points or sanitation facilities and monitor them over time by adding status updates, surveys or water quality tests. The different parts of the Surveyor platform are shown in Figure 1 below.

Figure 1. Overview of the parts of the mWater Surveyor platform.



1.1. Portal

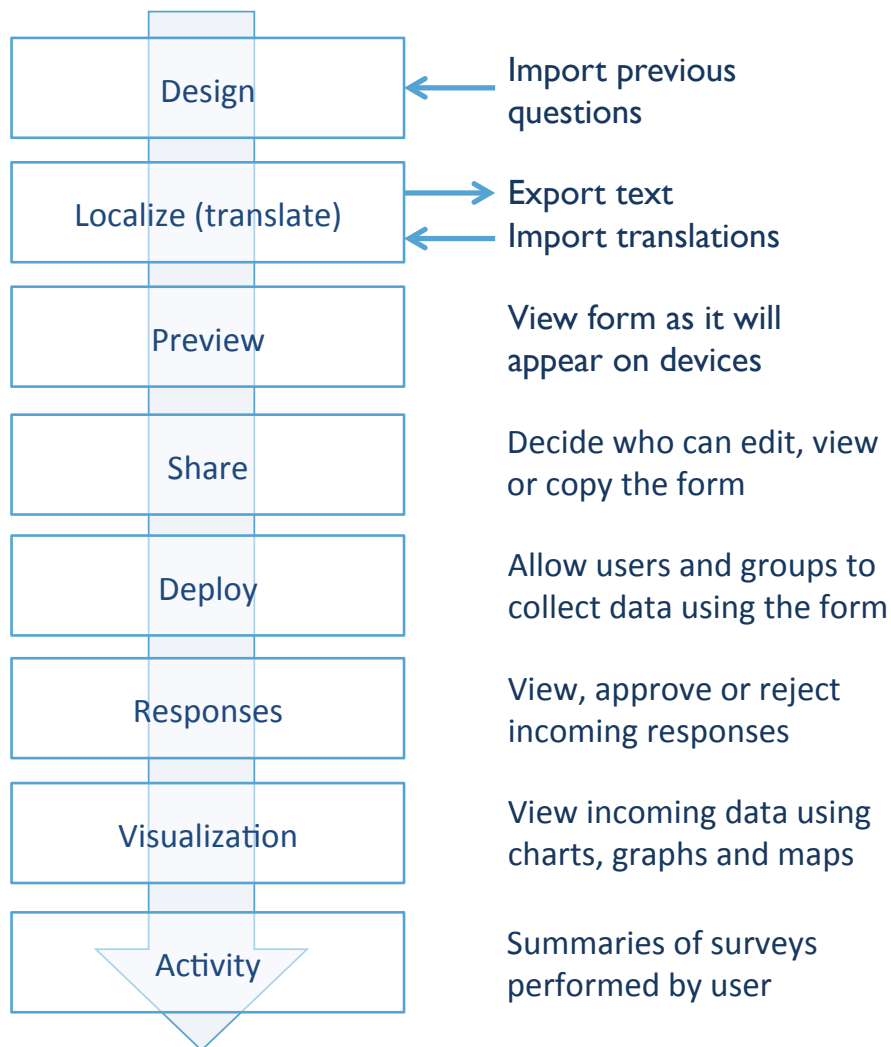
The Portal is a website that allows managers and administrators to access data on the mWater Server. The Server also communicates with the two mWater apps, Surveyor and Mapper. Whenever one of these apps has a data connection, all of the data is automatically backed up to the Server and any updates from other users are downloaded to their device. Unlike the mWater apps, which are designed to store copies of their data so that they can work offline, the Portal is intended to be used with an internet connection on a desktop or laptop computer.

1.2. Conducting surveys in mWater

Through the Surveyor Portal, an organization can design surveys, deploy them to users on mobile devices and monitor the responses coming in from the field. The Portal is designed to reflect the typical workflow of an organization, beginning with design and testing of the survey. This process

is the main subject of this manual, but it is helpful to first review Figure 2 to get an overview of where each step fits into the survey.

Figure 2. Overview of the survey process in mWater. Each of the steps on the left is a tab within the view of a particular Form in the Portal.



1.3. Key terms

A complete listing of terms used in mWater is presented in the Glossary; however, the list of key concepts below will be most useful for getting started with the Portal:

- **Form:** A list of **Questions** that will be asked in the survey. Questions are organized into **Sections** and may have **Conditions** set that determine whether or not they should be displayed during a survey, based on previous answers.

- **Answer:** The information that will be gathered for each question. Some questions will have a set list of answers, while other answers may be text, numbers or other types of data.
- **Response:** A complete set of all answers to a form, as submitted by a user in the field.
- **Deployment:** A single instance of a form being provided to a group of **Enumerators** who will be conducting the survey. A single form can have many deployments to different groups and the data from each can be viewed separately.

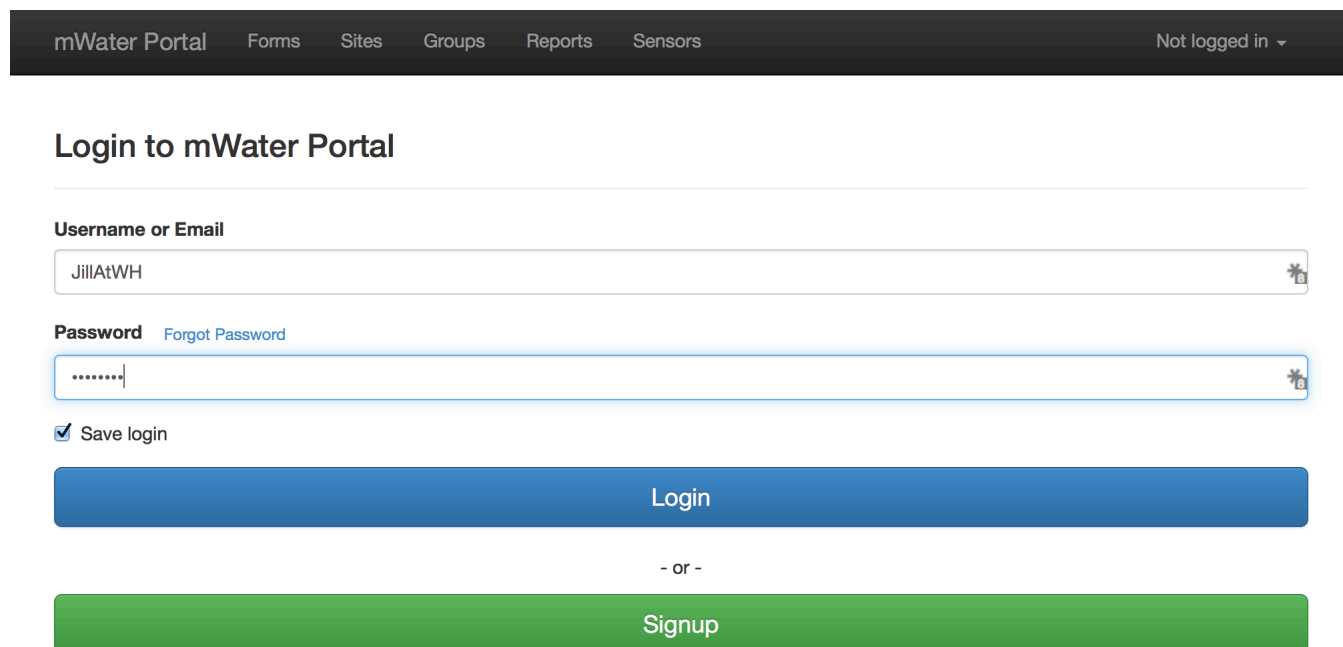
2. Accessing the portal

To begin using the portal, enter the following address into the web browser of your computer:

<http://portal.mwater.co>

Depending on your internet connection, it may take from a few seconds to a minute to open the portal for the first time. During this time, you may see a blue progress bar indicating the percent completion of the process. This happens because the mWater server is downloading some programming code into your web browser that is required to view the portal. Eventually, you should see the login / signup screen.

Figure 3. mWater Portal login / signup screen.



mWater Portal Forms Sites Groups Reports Sensors Not logged in ▾

Login to mWater Portal

Username or Email

JillAtWH

Password [Forgot Password](#)

.....

☒ Save login

Login

- or -

Signup

If you already have an mWater account, please enter your name and password here. The mWater account that you use for the portal is the same account that you use in the app.

If this is your first time using mWater, click on Signup and you will be taken to the Signup Page.

Figure 4. Signup page for new mWater users.

mWater PortalFormsSitesGroupsReportsSensorsNot logged in ▾

Signup with mWater

Username

Username

Note: Your username is visible to other users

Password

Password

Email address

Email

Note: Your email address will never be shared

Signup

Cancel

9

3. Forms

Forms are the main unit of data collection in mWater. For this reason, as soon as you open the portal and log in you will see a list of forms that you have access to. Everyone should see some forms in this list even if they are new user, because some forms are public and can be viewed by anyone.

Figure 5. The List of Forms.

mWater Portal
Forms
Sites
Groups
Reports
Sensors

Logged in as JillAtWH ▾

Forms

Name	Administrators	Modified	Operations
JMP Core Questions - Water	john, annie, grassick	06/05/2014	
My Form	john, BobAtWH	05/23/2014	
Nitrate Test Strip	john	05/12/2014	
Perceptions of Water Quality - Color, Odor and Taste	john, annie, jessica	06/02/2014	
Simple Water Source Form	john	05/02/2014	
Water quality assessment for streams and lakes	john	05/28/2014	

Showing 1 to 6 of 6 entries

Previous
1
Next

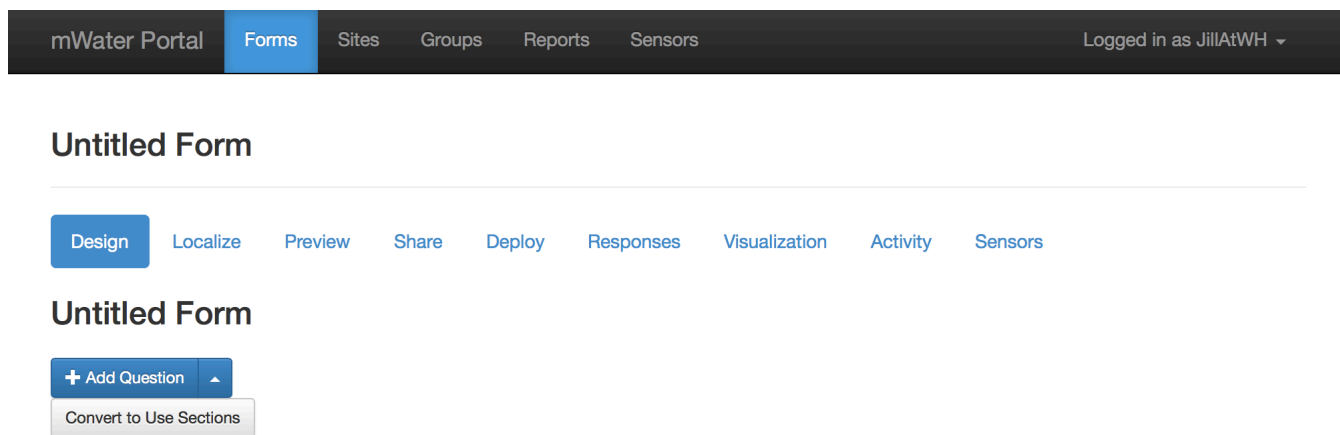
+ Create New Form

You will notice that in the portal view there is a top-level navigation bar (the dark colored bar with white text) that you can use to navigate between the main task areas that you will need when using the portal. The tab that is highlighted in blue indicates the task area you are currently working on.

3.1. Creating a new form

Within the form tab you may open a form by clicking on its name in the list. You may also create a new form of clicking the blue button at the bottom of the page. Let's try creating a new form called, "My Water Survey." Click on the blue create new form button and you will be taken to a blank form:

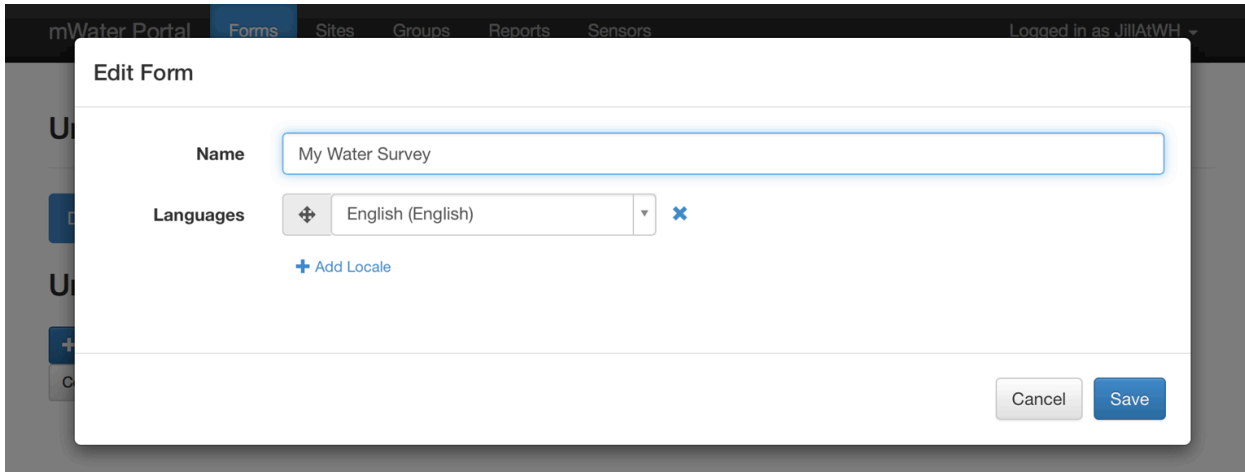
Figure 6. A new blank form, created by clicking Create New Form in the Forms list.



The screenshot shows the mWater Surveyor Portal interface. At the top is a dark navigation bar with the following elements: 'mWater Portal' on the left, a 'Forms' tab highlighted in blue, and other tabs 'Sites', 'Groups', 'Reports', and 'Sensors'. On the right side of the bar, it says 'Logged in as JillAtWH' with a dropdown arrow. Below the navigation bar, the main content area has a title 'Untitled Form'. Underneath the title is a row of tabs: 'Design' (highlighted in blue), 'Localize', 'Preview', 'Share', 'Deploy', 'Responses', 'Visualization', 'Activity', and 'Sensors'. Below these tabs, the title 'Untitled Form' is repeated. Under this second title, there is a blue button that says '+ Add Question' with a small upward arrow, and a grey button below it that says 'Convert to Use Sections'.

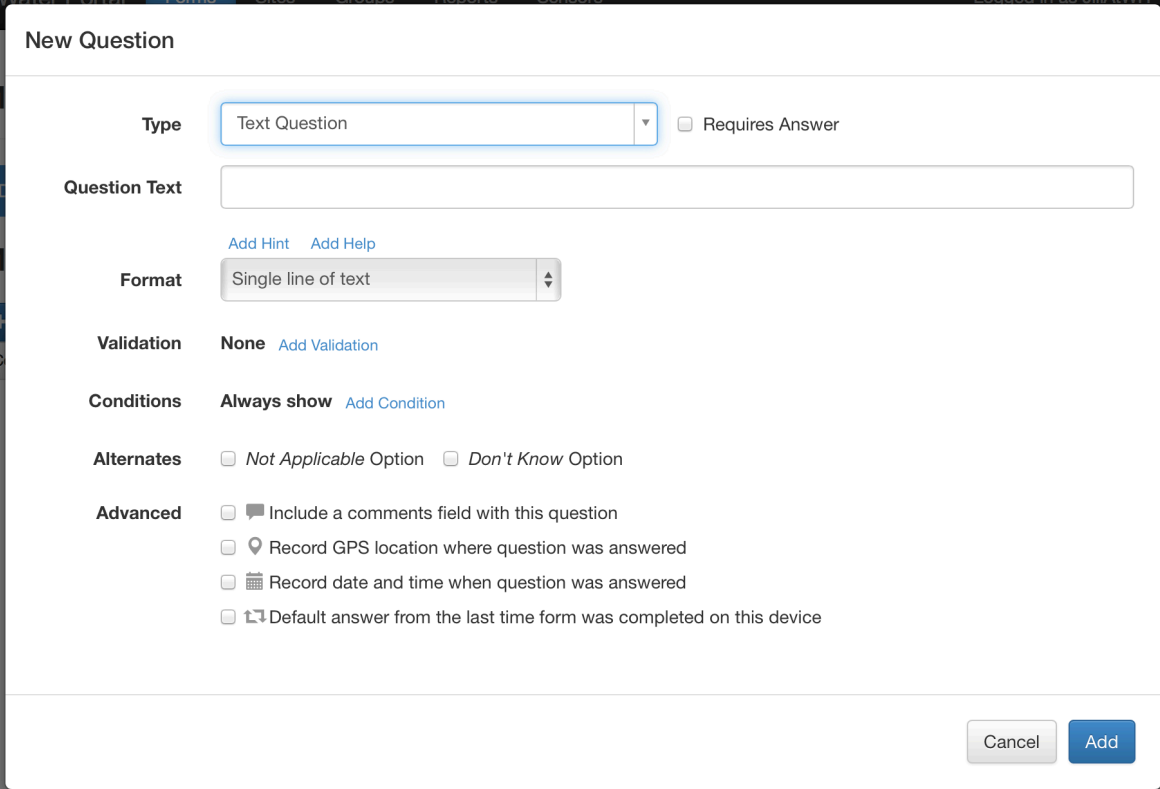
Notice that a new set of tabs appears below the title of the form, which for now is "Untitled Form." These tabs are for actions that relate specifically to this form.

Hover over the title and you will notice that a small **Edit** button appears. Click on this button. A pop-up window appears over the form with a text box where you can change the name of the form to "My Water Survey." In this box you can also change the primary language of the form. Click **Save** when you are finished making changes.

Figure 7. Edit Form title popup window.

3.2. Adding questions to a form

Questions are added to the form by clicking on the **+ Add Question** button. Notice that there is also an arrow at the end of this button that will open up a list of other options that include adding instructions or searching the question library for a question. For now, simply press the button to create a new question. This will open the new question dialog box.

Figure 8. New Question dialogue box.


New Question

Type Text Question ☐ Requires Answer

Question Text

[Add Hint](#) [Add Help](#)

Format Single line of text

Validation None [Add Validation](#)

Conditions Always show [Add Condition](#)

Alternates ☐ Not Applicable Option ☐ Don't Know Option

Advanced

- ☐ Include a comments field with this question
- ☐ Record GPS location where question was answered
- ☐ Record date and time when question was answered
- ☐ Default answer from the last time form was completed on this device

Cancel Add

The default type of question is a text question; however, you may click on the arrow at the end of this box to pick from the list of question types. Question types are explained in detail in the next section. For now, we will use the default text question type and enter the text that we want to appear on the enumerator's screen when answering this question. Enter in the question text, "What is the water source type?" Notice that the default option selected is a single line of text, which will appear on the enumerator's screen as a single line.

3.3. Question types

mWater can accommodate many of the common question types used in surveys. We periodically add new types when our clients require them. The current types and some of their features are included in Table 1 below.

Table 1. Question types available in mWater.

Question Type	Description	Special Options
Text Question	Simple text entry by typing, using the standard text keyboard on mobile devices.	Format: <ul style="list-style-type: none"> • Single line of text • Multiple lines of text (provides more space for answer) • E-mail address • URL (web address)
Number Question	Only allows the entry of numbers, using the number keyboard on mobile devices.	Format: <ul style="list-style-type: none"> • Decimal number (allows use of the decimal point) • Whole number (no decimal) Validation: <ul style="list-style-type: none"> • Value is in range (allows a min and max value to be set, warning enumerator if outside the allowable range)
Dropdown Question	Choose a single answer from a dropdown list of possible answers.	Add “Other” with text box (adds the special choice Other, which displays a text entry box when selected)
Radio Buttonⁱ Question	Choose a single answer from a list of possible answers. The list is displayed and when a different answer is selected the previously selected answer is unselected.	<i>See Section 3.4 for more about how to add choices.</i>
Checkbox Question	A single checkbox that records Yes if selected. Use this for checklists of steps that should be completed or reminders.	Label (displayed next to checkbox; use for the expected action such as “Step Complete”)
Multi-check Question	Choose multiple answers from a list of answers. More than one answer can be selected by clicking on a checkbox.	See Section 3.4 for more about how to add choices. Add “Other” with text box (adds the special choice Other, which displays a text entry box when selected)
Date Question	Opens a calendar-style date selector.	Formats: <ul style="list-style-type: none"> • yyyy-mm-dd (year-month-day) • mm-dd-yyyy (month-day-year)

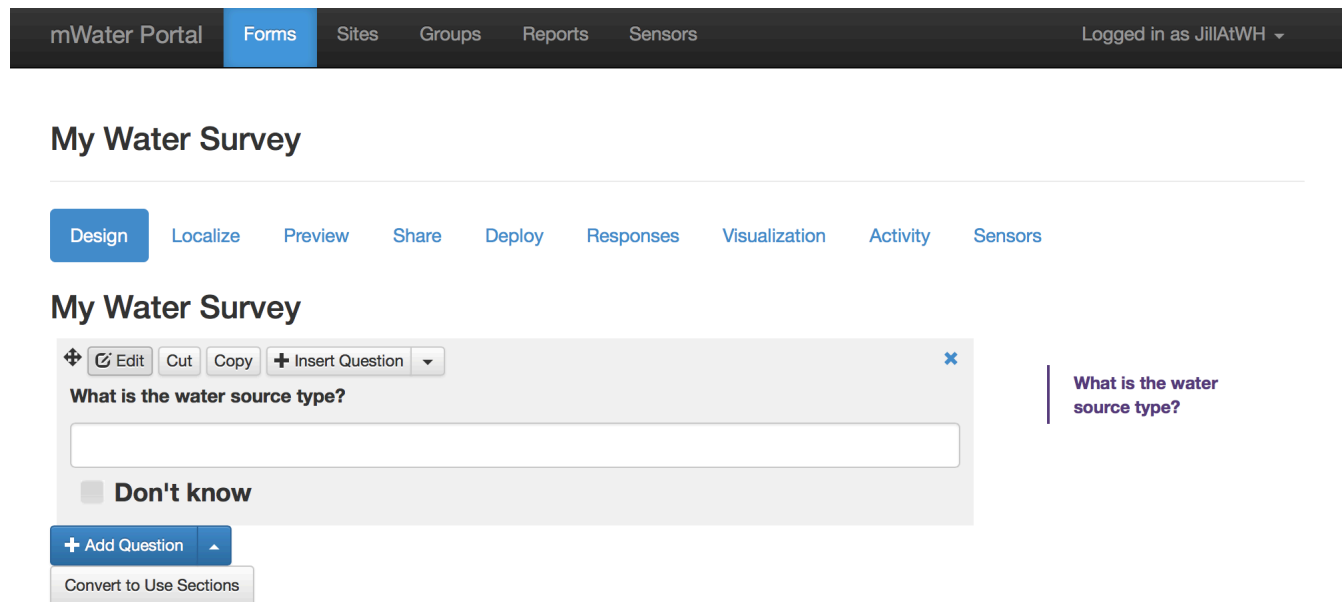
ⁱ Radio Button refers to the old push-button radios that were used in cars. Since the radio could only tune to one channel at a time, a mechanism would push out the previously selected button when a new button was pressed in.

Question Type	Description	Special Options
Units Question	Special type of number question that includes the unit of measure.	<p>Units (units are text fields that appear next to a value; a question may have a single unit option)</p> <p>Default Unit (select which unit will be displayed by default in the dropdown box)</p> <p>Units Position (display the unit before or after the value)</p>
Location Question	Opens the mWater location setting control that allows the enumerator to set their location using onboard GPS.	
Image Question	Displays a camera icon; when clicked, a photo may be take using the camera or uploaded from the device.	Some devices (including most web browsers) will also have the option to select the image from a file on the device.
Images Question	Same as Image Question except that multiple images may be captured using the same question.	
Text List Question	A special type of text entry in which an unlimited number of separate text answers may be entered.	When user presses Enter, a new single test line appears in a numbered list.
mWater Site Question	Use this to relate the response to an mWater site. Use this instead of the location question when the objective is longitudinal monitoring of a site (going back for repeated visits).	<p>The enumerator may enter the mWater Site ID (a unique site number assigned by the server) for existing sites;</p> <p>Or:</p> <ul style="list-style-type: none"> • Select site from a map • Select from a list of nearby sites • Create a new site to select

3.4. Editing questions

Whenever the mouse cursor hovers over a question, a set of buttons appear with more options.

Figure 9. Edit options that appear when the mouse cursor hovers over a question.



These include:

- **Edit:** opens the dialogue box that appeared when the question was created, allowing changes to be made.
- **Cut:** used to move the question from one part of the form to another. When Cut is selected, Paste buttons appear in the appropriate spaces between questions throughout the form. Hover over an area to see the Paste button and click on it to place the cut question there.
- **Copy:** similar to Cut, but the question is copied and can be pasted anywhere in the form.
- **Insert question:** use this to insert a new question immediately above the current question.
- **X:** deletes the current question.

It is also possible to rearrange questions in the form by click on the cross-arrow icon at the top left of the question and dragging it to a new location.

3.5. Adding choices to questions

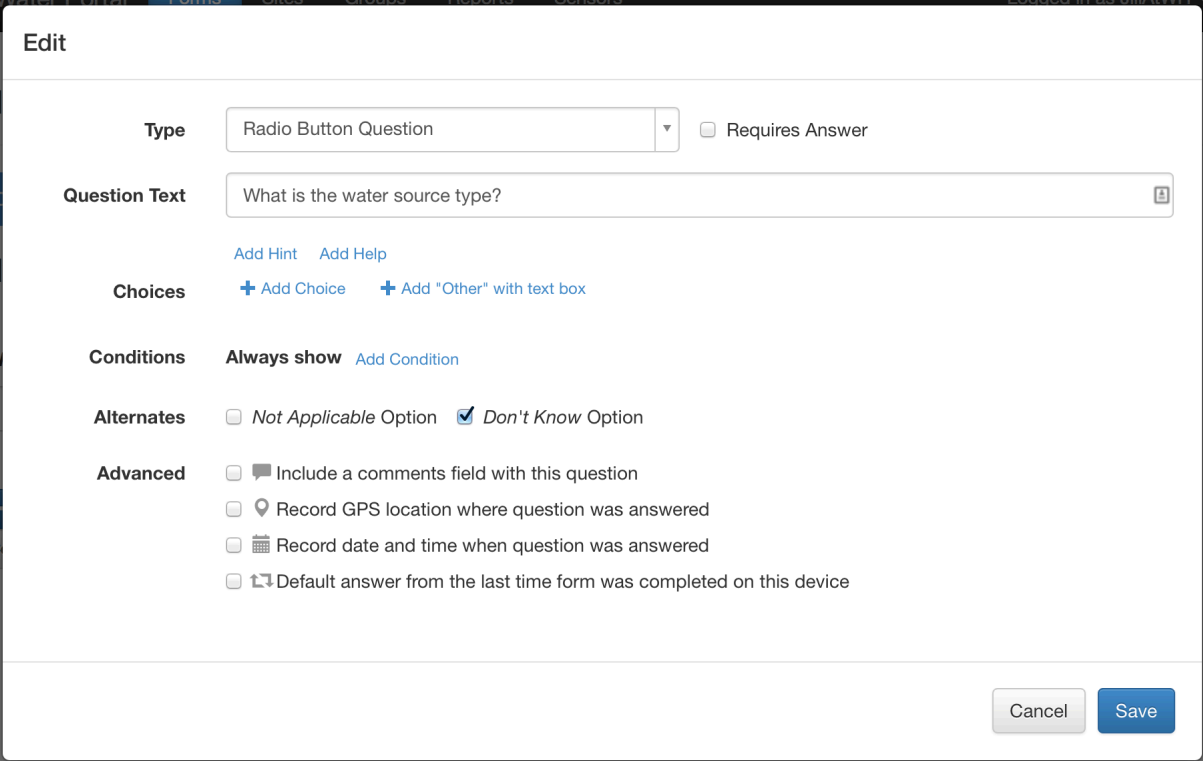
It is often better for the purposes of analysis to standardize the possible answers to a question into a discrete list. This can be done in mWater by selecting one of the following question types:

- Dropdown
- Radio button

- Multi-check

The list of possible answers is created by adding them one by one to the **Choices** section of the edit question box. Let's edit the "Water source type," question we just created by hovering over the question, which will cause the editing options to appear. Select **Edit** and then change the Question Type to Radio Button Question.

Figure 10. Changing from Text to Radio Button question type.



The screenshot shows the 'Edit' dialog box in the mWater Surveyor Portal. The dialog has a title bar 'Edit' and a close button. The main content area is divided into several sections:

- Type:** A dropdown menu set to 'Radio Button Question'. To its right is a checkbox labeled 'Requires Answer' which is unchecked.
- Question Text:** A text input field containing 'What is the water source type?'. To its right is a small icon for adding a hint.
- Choices:** A section with two links: '+ Add Choice' (highlighted in blue) and '+ Add "Other" with text box'.
- Conditions:** A section with the text 'Always show' and a link '+ Add Condition'.
- Alternates:** A section with two checkboxes: 'Not Applicable Option' (unchecked) and 'Don't Know Option' (checked).
- Advanced:** A section with four checkboxes:
 - 'Include a comments field with this question' (unchecked)
 - 'Record GPS location where question was answered' (unchecked)
 - 'Record date and time when question was answered' (unchecked)
 - 'Default answer from the last time form was completed on this device' (unchecked)

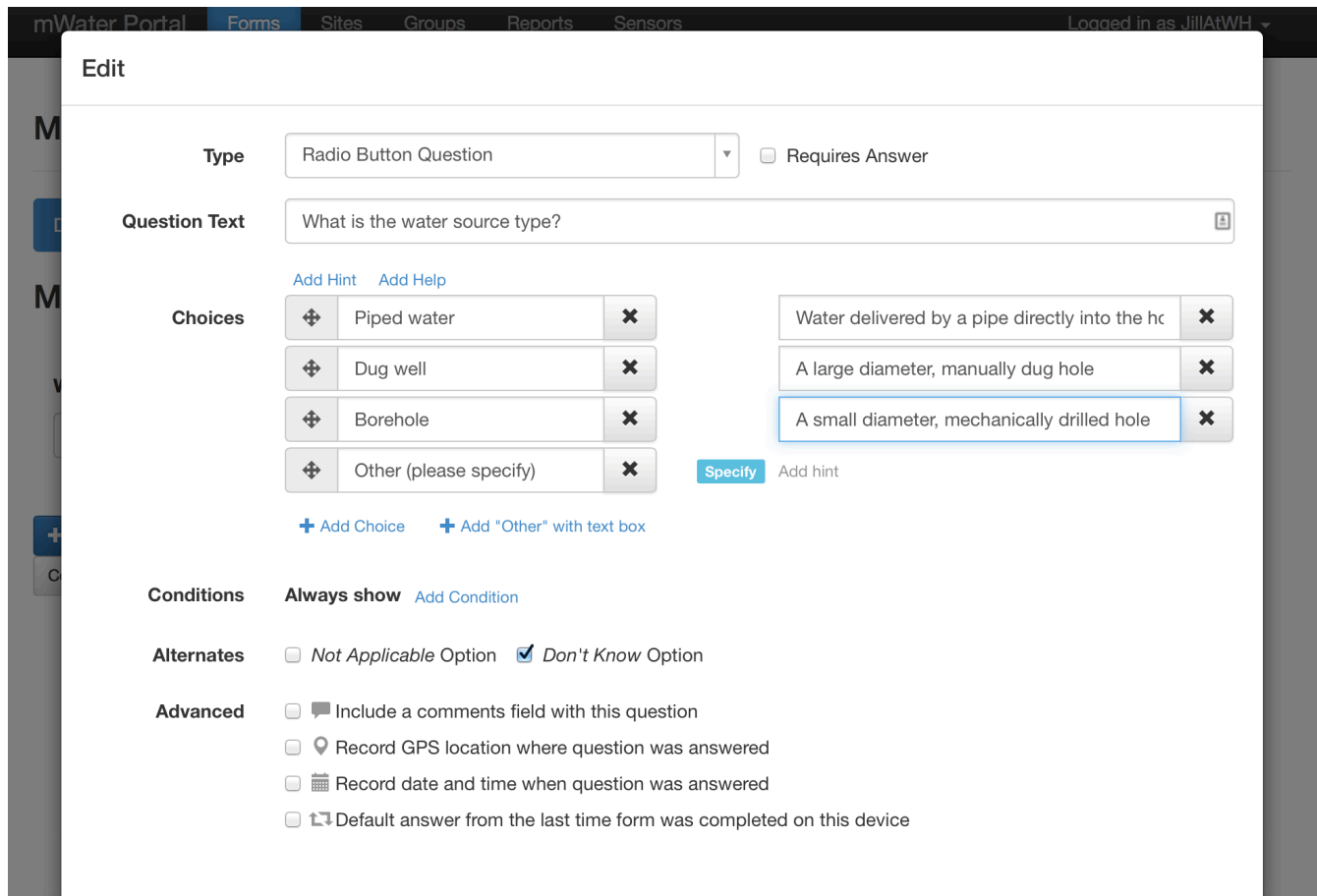
At the bottom right of the dialog are two buttons: 'Cancel' and 'Save'.

The question text stays the same, but now we can specific choices by clicking on the **+ Add Choice** button. Now, enter some typical options, clicking **+ Add Choice** for each new one:

- Piped water
- Dug well
- Borehole

Each possible answer appears in a list in the Choices section. You can click on the cross-arrows icon next to a choice to drag it to a new position on the list, or you can delete a choice by clicking on the X. You can also [add hints](#) to each choice (to be displayed in grey text next to the choice). Also, we can add a special *Other (please specify)* option that will open a text entry box when selected by the user.

Figure 11. Adding choices to a Radio Button question.



The screenshot shows the 'Edit' dialog for a 'Radio Button Question' in the mWater Surveyor Portal. The question text is 'What is the water source type?'. The 'Choices' section lists four options: 'Piped water', 'Dug well', 'Borehole', and 'Other (please specify)'. Each choice has a cross-arrow icon for reordering and an 'X' icon for deletion. To the right of the 'Other' choice, a text entry box is visible with the text 'A small diameter, mechanically drilled hole'. Below the choices, there are links for '+ Add Choice' and '+ Add "Other" with text box'. The 'Conditions' section shows 'Always show' selected. The 'Alternates' section has 'Don't Know Option' checked. The 'Advanced' section includes options for including a comments field, recording GPS location, recording date and time, and defaulting to the last answer.

Edit

Type Radio Button Question ☐ Requires Answer

Question Text What is the water source type?

Choices

[Add Hint](#) [Add Help](#)

⬅ ➡	Piped water	✕	Water delivered by a pipe directly into the hc	✕
⬅ ➡	Dug well	✕	A large diameter, manually dug hole	✕
⬅ ➡	Borehole	✕	A small diameter, mechanically drilled hole	✕
⬅ ➡	Other (please specify)	✕		

[Specify](#) [Add hint](#)

[+ Add Choice](#) [+ Add "Other" with text box](#)

Conditions Always show [Add Condition](#)

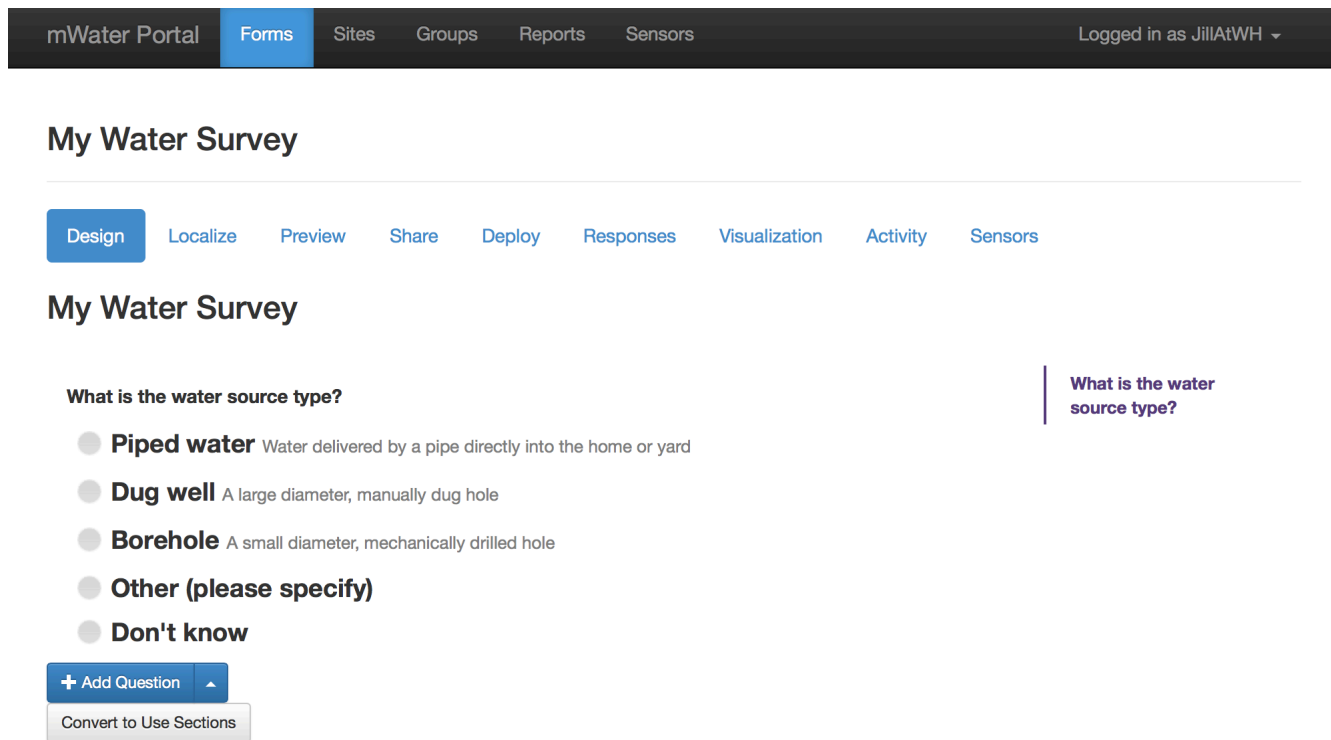
Alternates ☐ Not Applicable Option ☒ Don't Know Option

Advanced

- ☐ Include a comments field with this question
- ☐ Record GPS location where question was answered
- ☐ Record date and time when question was answered
- ☐ Default answer from the last time form was completed on this device

Now, click on the **Save** button (you may have to scroll down in this dialogue box to see the Save button). The question should appear in design view with the choices we entered.

Figure 12. Radio Button question displayed in Design View.



The screenshot shows the mWater Surveyor Portal interface. At the top is a navigation bar with links: mWater Portal, Forms (active), Sites, Groups, Reports, and Sensors. On the right, it says "Logged in as JillAtWH". Below the navigation bar is a section titled "My Water Survey". Under this title is a sub-navigation bar with links: Design (active), Localize, Preview, Share, Deploy, Responses, Visualization, Activity, and Sensors. The main content area displays a question: "What is the water source type?". To the right of the question is a vertical line and the text "What is the water source type?". Below the question are five radio button options:

- ☐ **Piped water** Water delivered by a pipe directly into the home or yard
- ☐ **Dug well** A large diameter, manually dug hole
- ☐ **Borehole** A small diameter, mechanically drilled hole
- ☐ **Other (please specify)**
- ☐ **Don't know**

 Below the options are two buttons: "+ Add Question" and "Convert to Use Sections".

Notice that the **Other (please specify)** choice appears and opens a text entry box when it is selected. The **Don't know** alternate is also available since it was checked when we first created the question. These *alternates* are special responses that are treated differently by mWater during data analysis. When downloading survey data, alternates will have their own column in the spreadsheet so that they can be analyzed separately from the other data.

3.6. Question options

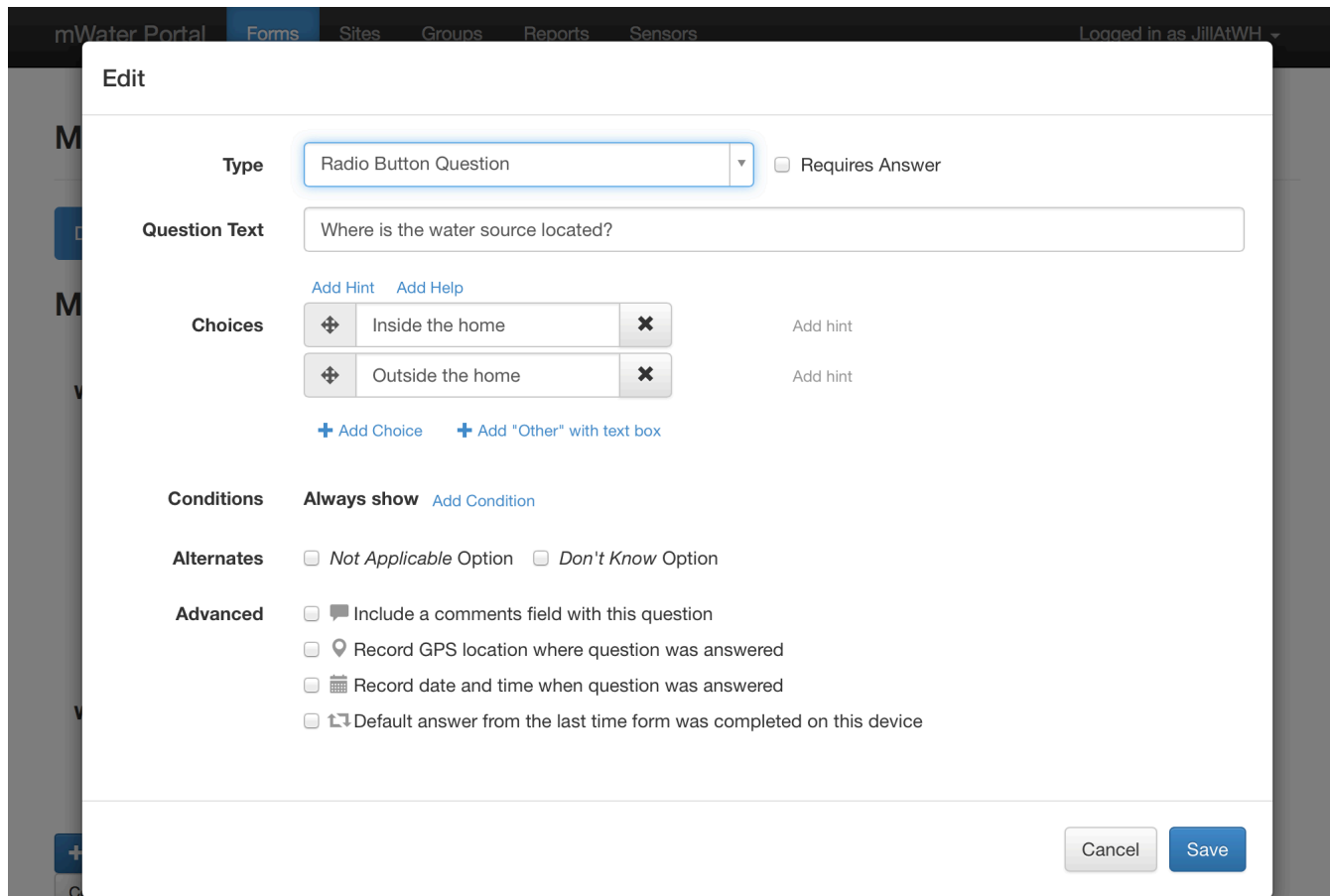
A number of basic options are available for any question type:

- **Requires Answer:** If this check box is selected, the enumerator will not be able to move to the next section or complete the survey must question is answered. Use this option with care because it can prevent a survey from being completed.
- **Add Hint:** Click here to add text that will always appear in grey below the main question text. Hints should be short one- to two-line phrases that remind enumerators of important information.

- **Add Help:** Help is the place to add more detailed information to help the enumerator select the right answer or enter the information correctly. Help text is only displayed if the enumerator clicks on the ? icon next to the question text. The help section can be as long as necessary and may contain formatting and pictures.
- **Validation:** use this feature to force the enumerator to enter data in a specified format. Some simple options are included for numerical questions. More advanced options, including the use of regular expressions, are possible but are beyond the scope of this manual.
- **Conditions:** determine whether a question will appear, depending upon the answers to previous questions. Conditions are covered in detail in Section 3.7.
- **Alternates:** these include commonly used options for answers such as Not Applicable or Don't Know. It is best to use these alternates whenever appropriate rather than entering them as answer choices because mWater can display these responses separately or exclude them from the data that is viewed or exported.
- **Advanced options:**
 - **Include a comments field with this question** will place a small text entry field at the end of the question. This is helpful when enumerators are accustomed to writing notes about the question or the survey in the margins of the page.
 - **Record GPS location where question was answered** will record the current location of the enumerator's device when this specific question was answered. The enumerator is not notified when this position is recorded so this option can be used to check that the survey was actually performed at the specified location.
 - **Record date and time when question was answered** records the date and time for only this particular question. mWater records automatically the time that a survey is started and finished. Use this option to track how long different sections of the survey are taking or if a question is later changed after the survey is submitted.
 - **Default answer from the last time form was completed on this device** is useful when the answer to a question only changes rarely. For example, if the enumerator is performing the survey in one district at a time, the district name can be automatically filled using the previous answer, avoiding additional typing.

3.7. Setting conditions for questions

Sometimes a question is only relevant if a certain answer was selected in a previous question. For example, imagine we wanted to add a question about how long it takes the person to fetch water. This would only make sense if the water source is outside of the home. Let's create a radio button question asking where the water source is located, adding the Choices "Inside the home" and "Outside the home":



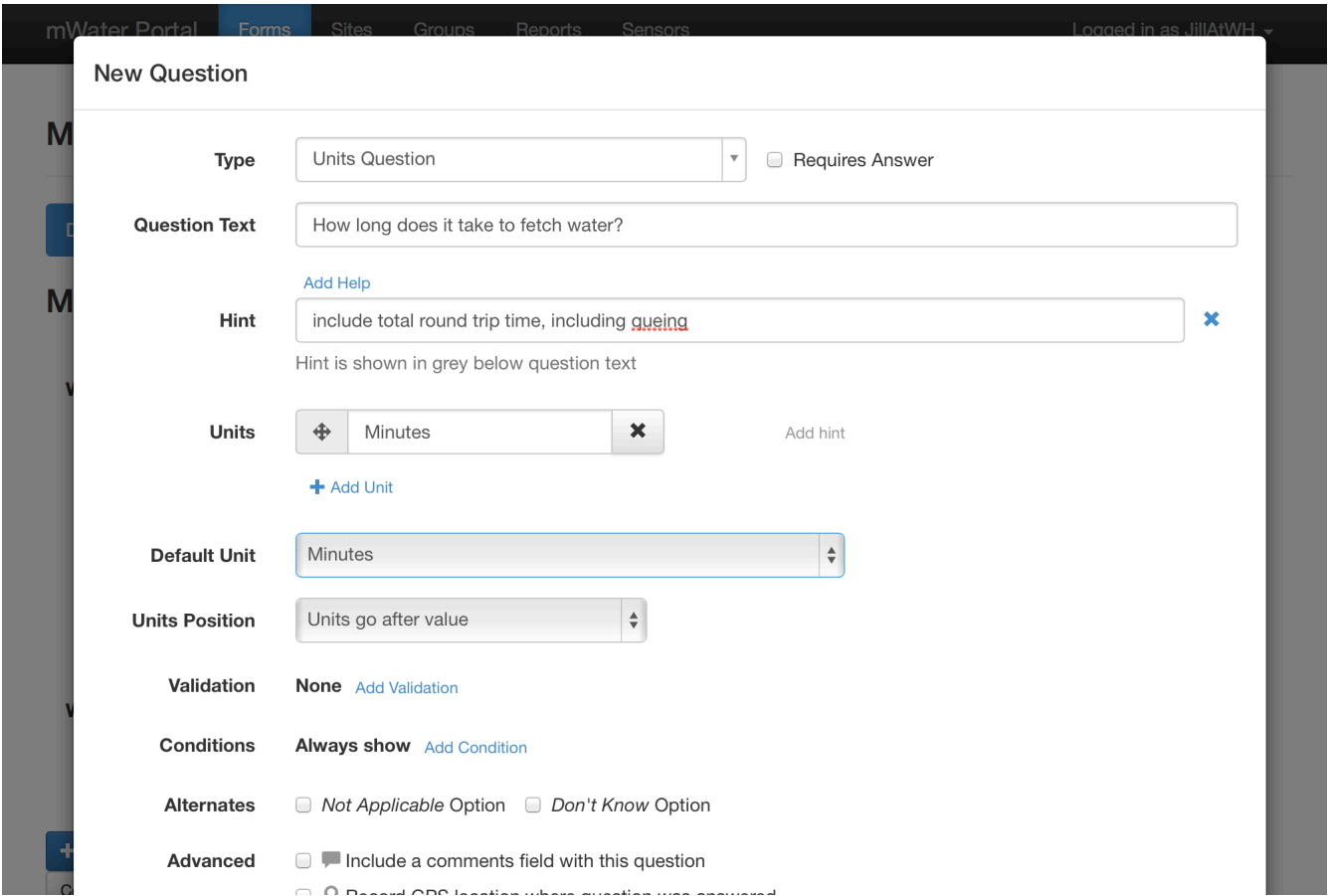
The screenshot shows the 'Edit' form for a question in the mWater Surveyor Portal. The form is titled 'Edit' and has a navigation bar at the top with links to Forms, Sites, Groups, Reports, and Sensors. The user is logged in as JILLATWH. The form contains the following sections:

- Type:** A dropdown menu set to 'Radio Button Question'. There is a checkbox for 'Requires Answer' which is currently unchecked.
- Question Text:** A text field containing 'Where is the water source located?'.
- Choices:** A section with two choices: 'Inside the home' and 'Outside the home'. Each choice has a hint field labeled 'Add hint'. There are buttons for 'Add Hint', 'Add Help', '+ Add Choice', and '+ Add "Other" with text box'.
- Conditions:** A section with a dropdown set to 'Always show' and a button for 'Add Condition'.
- Alternates:** A section with two checkboxes: 'Not Applicable Option' and 'Don't Know Option', both of which are unchecked.
- Advanced:** A section with four checkboxes: 'Include a comments field with this question', 'Record GPS location where question was answered', 'Record date and time when question was answered', and 'Default answer from the last time form was completed on this device'. All four checkboxes are unchecked.

At the bottom right of the form are 'Cancel' and 'Save' buttons.

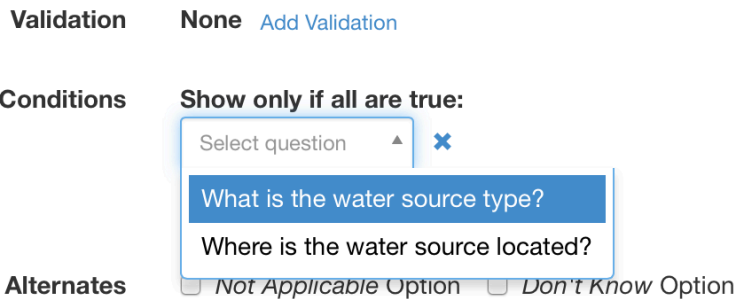
Next, we will add the question about how long it takes to fetch water. Make this a Unit type question but only include the unit, "minutes," to remind the enumerator and future data analysts that the number is in minutes. Make sure to choose minutes as the default unit so that the enumerator doesn't have to select it each time. We can also add a hint to remind the enumerator that this includes the total trip time, including queuing.

Figure 13. Adding a Unit question.



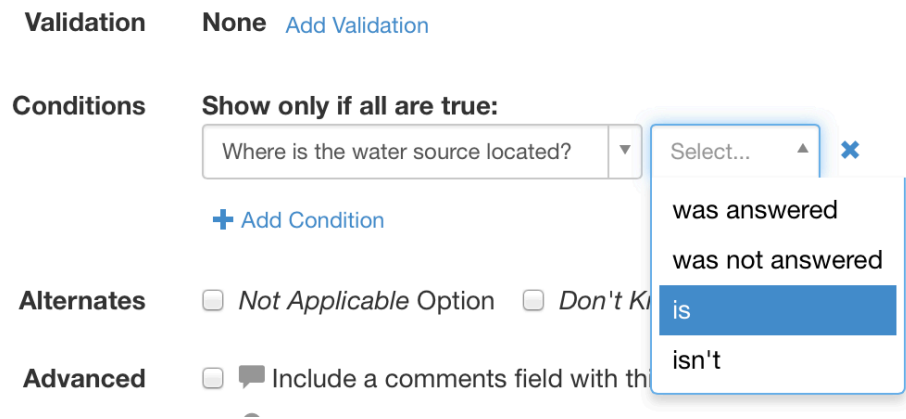
Since we only need to ask this question if the water source is outside the home, let's click Add Condition in the question dialogue box. Notice that the words, **Always Show**, have been replaced with **Show if all are true** and on the next line a blank condition is created. If we click on the dropdown box, a list of all previous questions appears. In long forms, you can begin typing a part of the question to narrow down this list.

Figure 14. Adding a condition to a question, Step 1.



Select “Where is the water source located?” for the question. A new dropdown appears next to the question text we selected. Click this dropdown and select “is.”

Figure 15. Adding a condition to a question, Step 2.



Validation **None** [Add Validation](#)

Conditions **Show only if all are true:**

Where is the water source located? Select... ✕

- was answered
- was not answered
- is**
- isn't

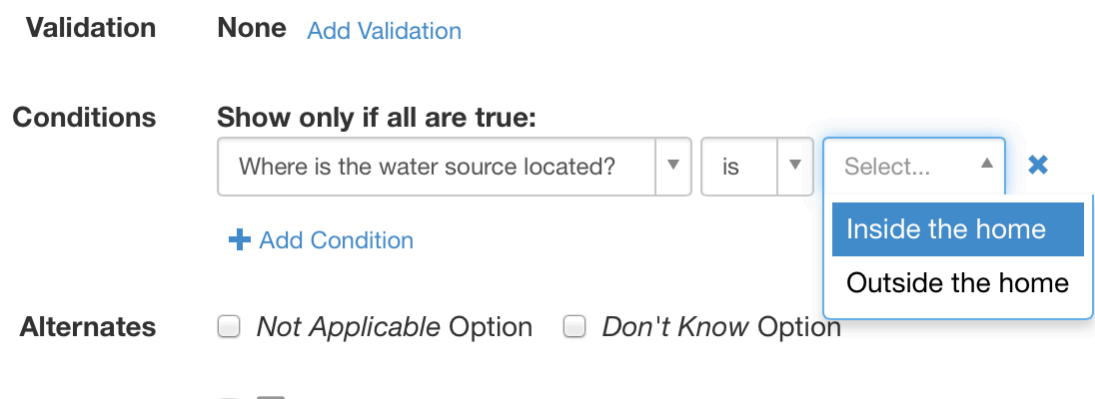
+ Add Condition

Alternates ☐ *Not Applicable Option* ☐ *Don't Know Option*

Advanced ☐ Include a comments field with the question

A final dropdown appears that shows all the possible answers to that question.

Figure 16. Adding a condition to a question, Step 3.



Validation **None** [Add Validation](#)

Conditions **Show only if all are true:**

Where is the water source located? is Select... ✕

- Inside the home**
- Outside the home

+ Add Condition

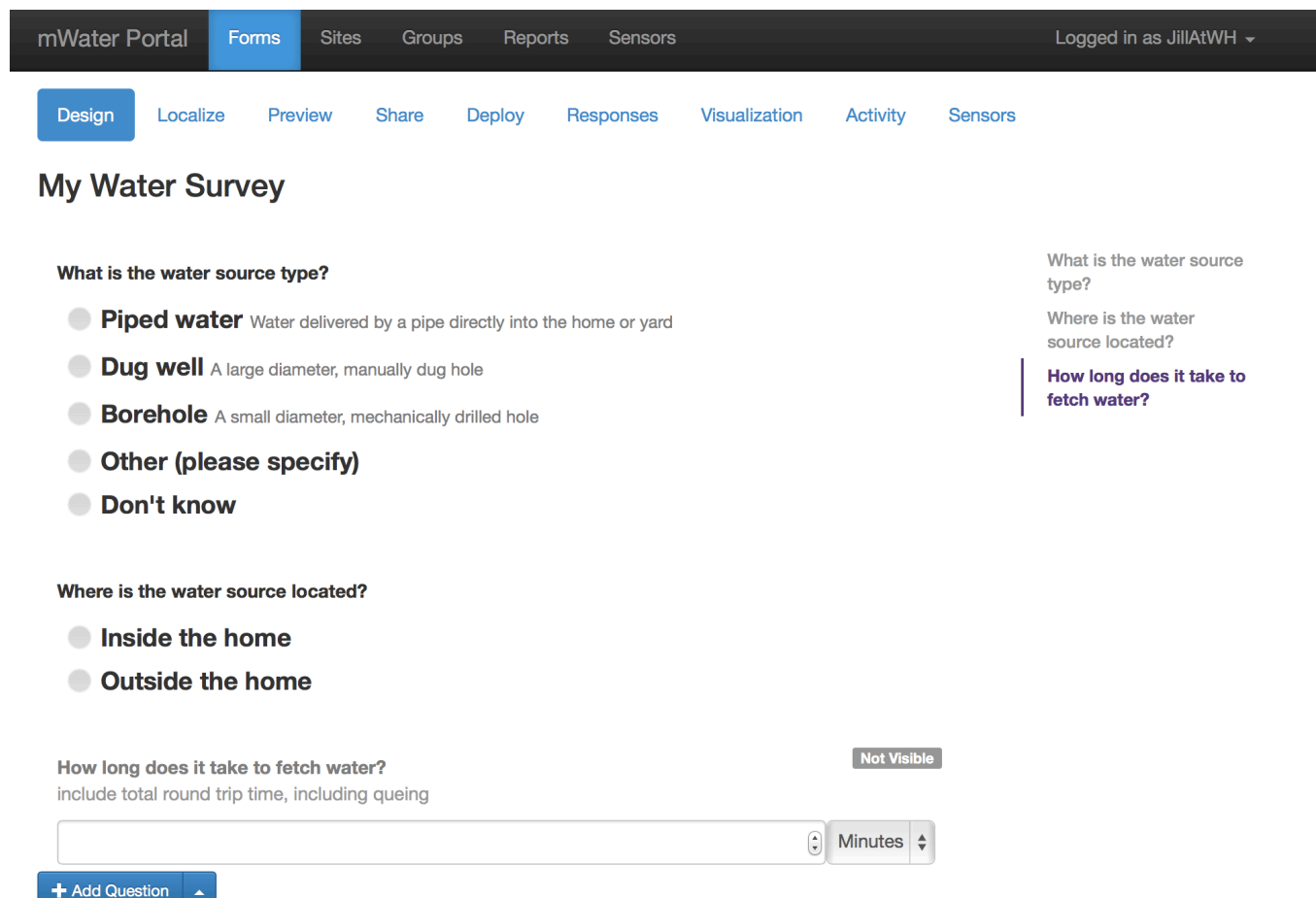
Alternates ☐ *Not Applicable Option* ☐ *Don't Know Option*

Select “Outside the home.” Now this question will only appear if the enumerator had previously recorded that the water source was outside the home.

3.8. Working in Design view

You may have noticed that a list of questions (or sections, if they exist) appears at the right side of the screen in design mode. You can click on these links to quickly move around within a long form. Also notice that the question we just created about the time to fetch water appears in design view in grey text, with a *Not Visible* label next to it:

Figure 17. A form in Design View.



This question is *Not Visible* because we set a condition that it should appear only when the enumerator selects, “Outside the home” for the water source location. Try selecting “Outside the home” and see that the *Not Visible* label disappears. You can unselect this choice by clicking on its radio button a second time.

The intention of Design View is to display the entire form (including hidden questions) but also see the effect of selecting different answers. It is also possible to print the complete form by using the print function in your web browser while viewing the form in Design View.

Also note that all changes made in Design View are instantly saved and downloaded to any users with active deployments. Therefore, it is best to use caution when changing a deployed form.

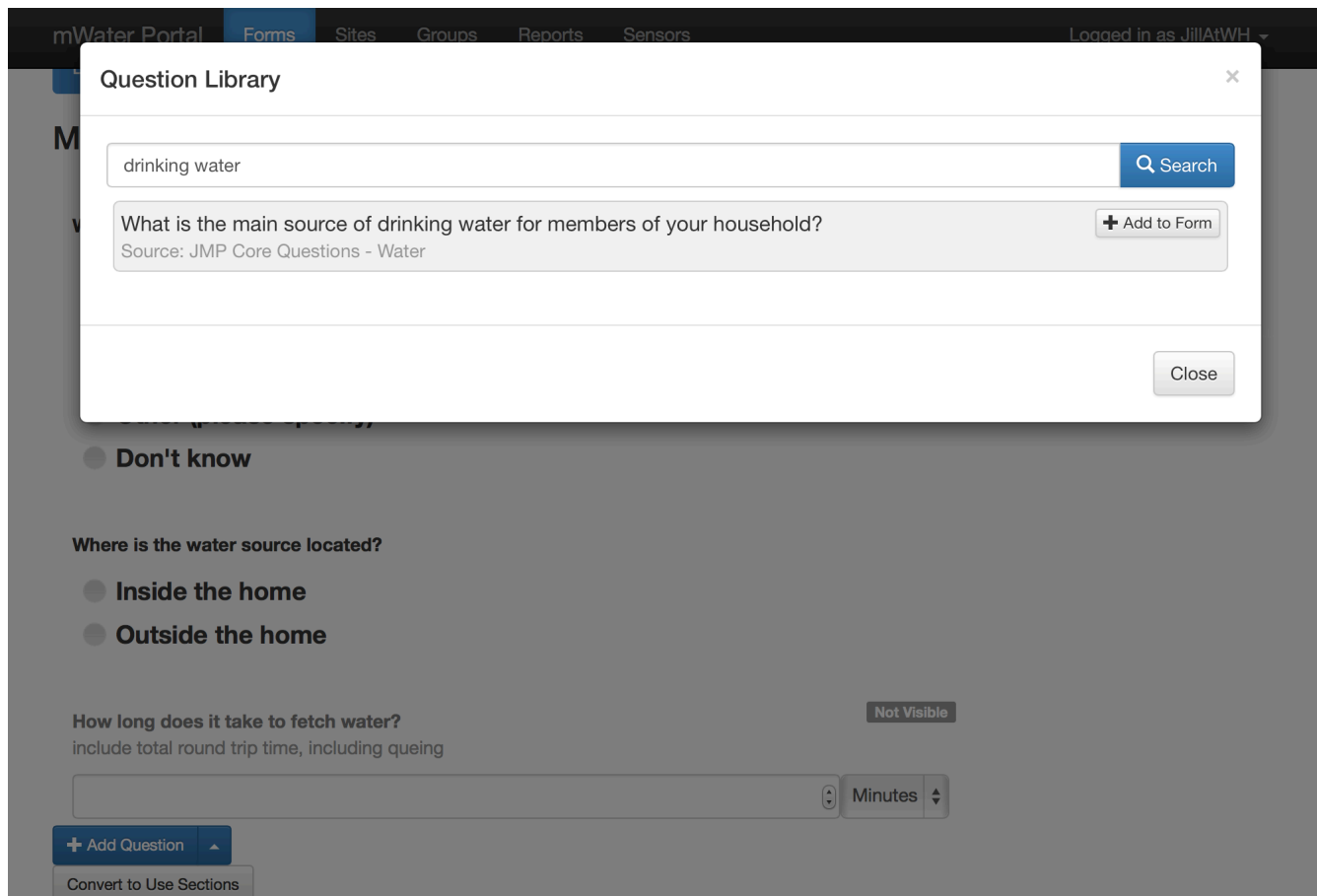
3.9. Using the question library

It is not necessary to start from scratch when creating a new form as we have done thus far in this example. We encourage our users to make forms public so that other individuals can benefit from their knowledge and efforts (only the design of the form is public, not the data you collect with it!).

Try searching the question library for a more comprehensive question on water source types.

Click on the arrow next to the **+ Add Question** button and then choose **Search Question Library**.

In the dialogue box that opens, type the words “drinking water,” then click the Search button. One option that should appear is the drinking water source question from the JMP Core Questions – Water Form.

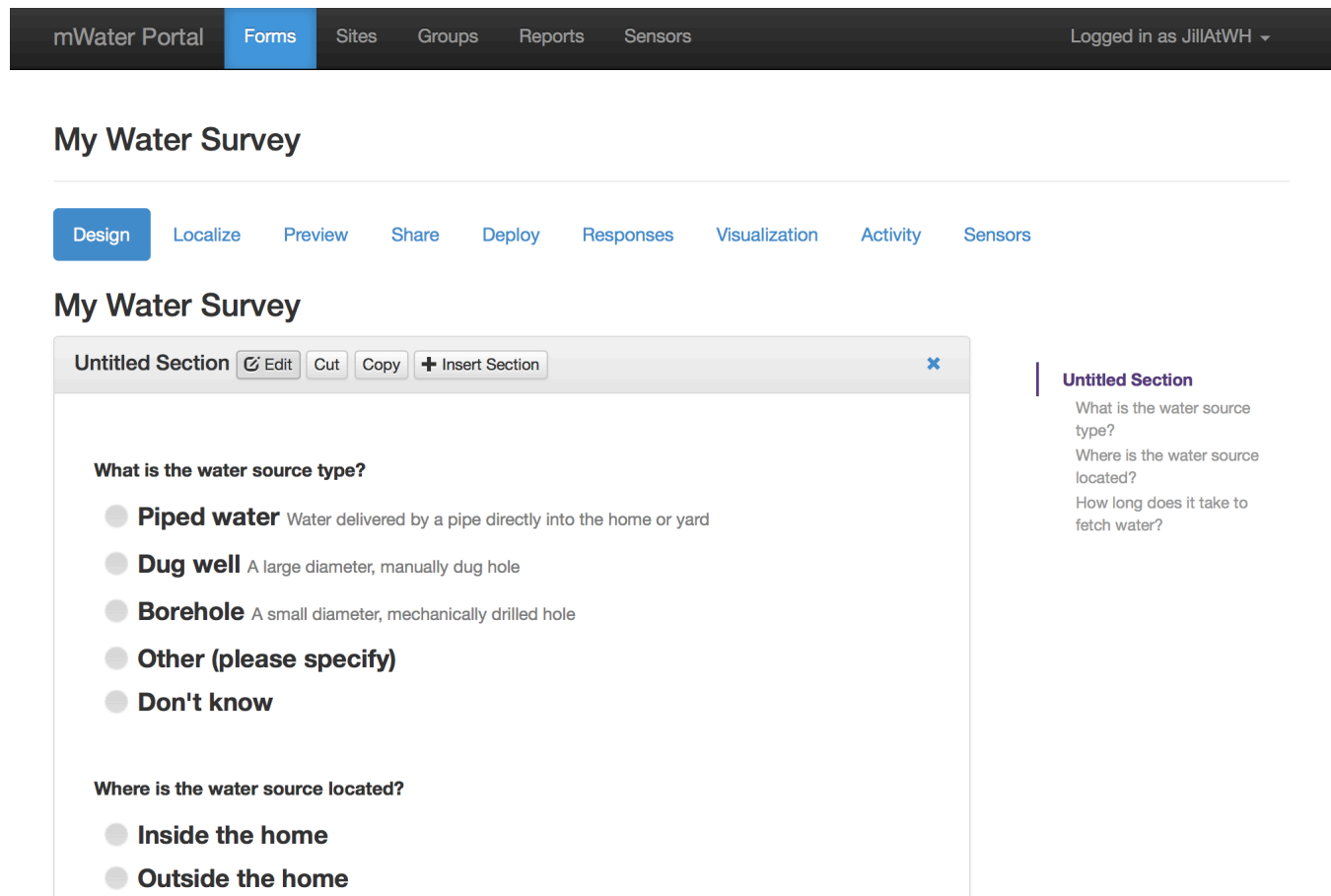
Figure 18. Adding a question by searching the Question Library.

Click the Add to Form button, then Close. Notice that this question is much more comprehensive than our original water source type question and it also includes rich descriptions of each type when we click on the Help button.

If some of these options are not applicable in our region, we can simply edit this question and delete or change it. This does not affect the original form that the question came from since it has been copied into our own form.

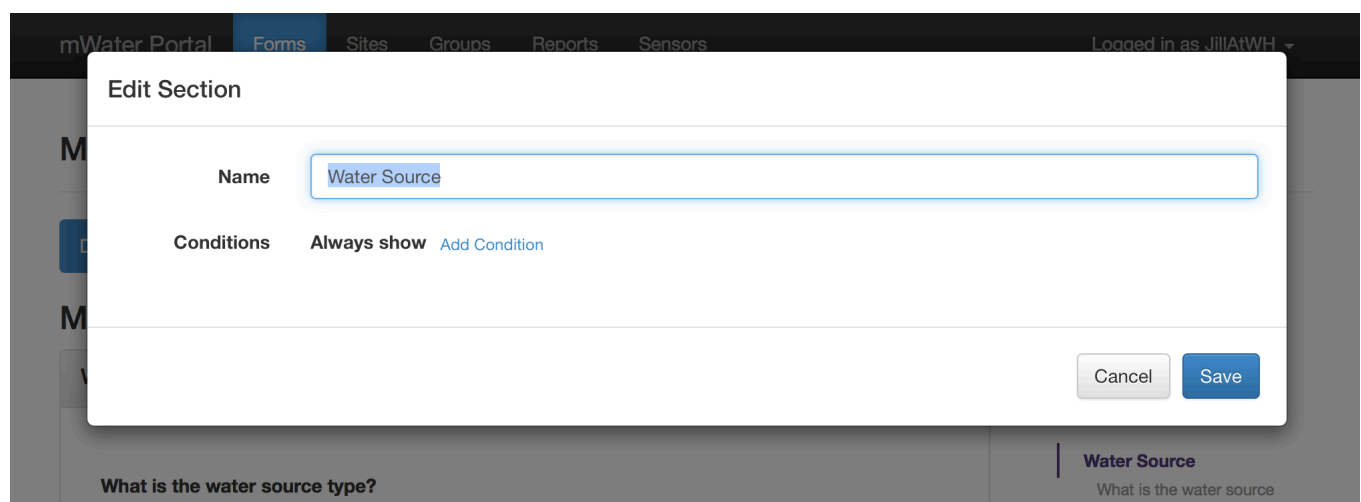
3.10. Using sections

In long forms, it is often helpful to break up the survey into sections. To use sections, simply scroll to the bottom of the form in Design View and click on Convert to Sections. Notice that all of the current questions are placed into a single section that is currently untitled.

Figure 19. Converting a form to use sections.

The screenshot shows the mWater Surveyor Portal interface. The top navigation bar includes 'mWater Portal', 'Forms' (selected), 'Sites', 'Groups', 'Reports', and 'Sensors'. The user is logged in as 'JillAtWH'. The main content area is titled 'My Water Survey' and contains a 'Design' tab. Below the tab, there is a section titled 'Untitled Section' with a toolbar containing 'Edit', 'Cut', 'Copy', and '+ Insert Section'. The section content includes two questions: 'What is the water source type?' with radio button options for 'Piped water', 'Dug well', 'Borehole', 'Other (please specify)', and 'Don't know'; and 'Where is the water source located?' with radio button options for 'Inside the home' and 'Outside the home'. A right-hand sidebar shows a preview of the section titled 'Untitled Section' with the same questions.

As with questions, if we hover over the Section Title, options appear to edit, cut, insert and delete sections. Edit this new section title to read, “Water Source.”

Figure 20. The Edit Section dialogue box.

The screenshot shows the 'Edit Section' dialogue box overlaid on the mWater Surveyor Portal. The dialogue box has a title bar 'Edit Section'. It contains a 'Name' field with the text 'Water Source' and a 'Conditions' section with the text 'Always show' and a link 'Add Condition'. At the bottom right, there are 'Cancel' and 'Save' buttons. The background shows the same 'My Water Survey' form as in Figure 19, but the 'Untitled Section' title is now 'Water Source'.

You can add a new section by clicking the **+ Add Section** button at the bottom of the page. Just as with questions, if you hover over the section title you will see options such as copy, cut, paste, insert and delete. Sections can also have conditions that effect whether the entire section is displayed.

Sections appear to the enumerator as pages would inside a web browser. When the user scrolls all the way to the bottom of the current section, they can move to the next section by using the **Next** button (assuming that all required questions have been answered).

3.11. Managing forms

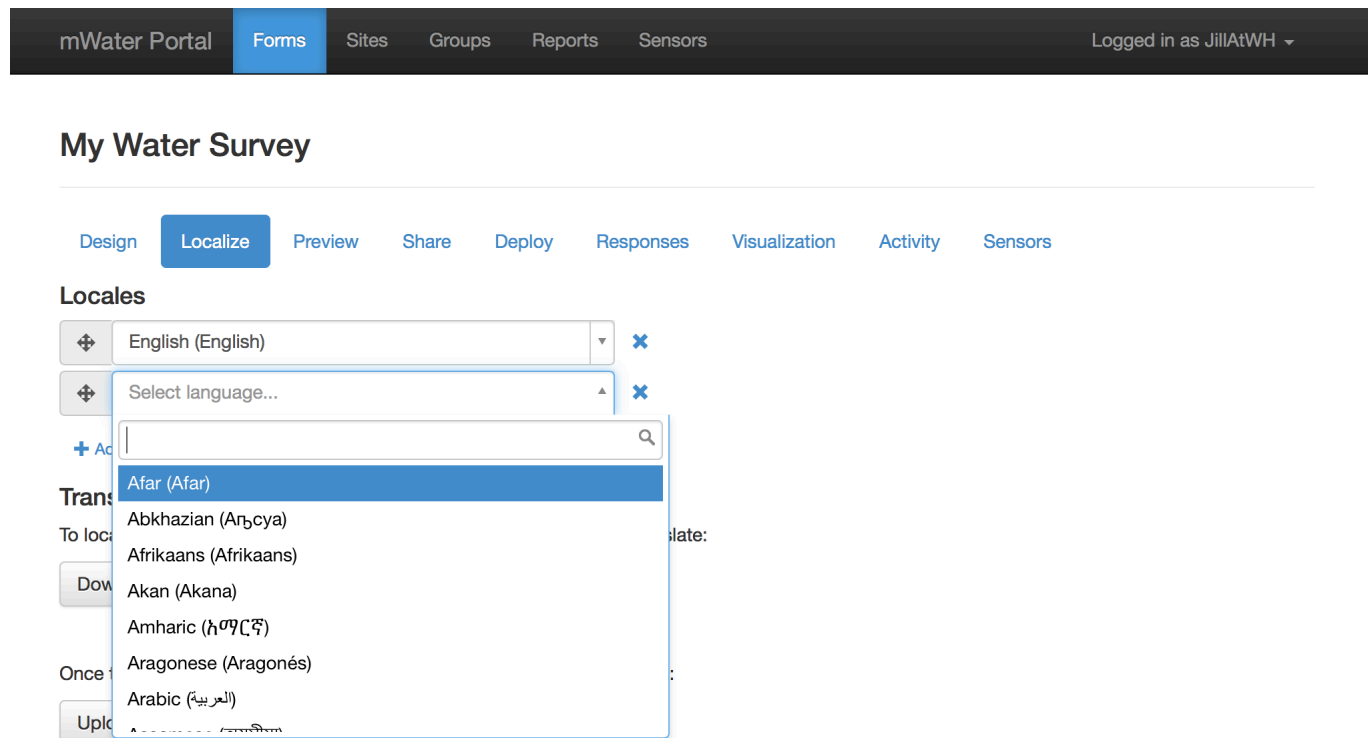
Click on the forms tab in the portal to view a list of all your forms. In this tab you may also duplicate or delete forms. These operations are available at the far right column, labeled *Operations*. Hover over the form in this column and you will see the following buttons appear:

- **Duplicate:** Any form that you are allowed to view may be duplicated. Once you duplicate the form you become the administrator of the new copy. You may then edit it and make changes. None of the responses to the original form are copied when the form is duplicated.
- **Delete:** Use caution when deleting a form, because all of the responses collected for that form will also be deleted. mWater will ask you if you are sure you want to delete.

4. Localization of forms

Localization in mWater refers specifically to the process of translating all of the text in the form to a different language. Click on the **Localize** tab in your form and you will see the list of locales that are currently available. Adding a new language choice to a form. If you click the **+ Add Locale** button, another line appears that says, “Select language.” Click the drop-down menu and you will see a list of all the languages supported by mWater. In this example, we will select the *Spanish* language.

Figure 21. Adding a new language choice to a form.



To begin the translation process, click on the **Download XLSX** button. You will need either Microsoft Excel or Libre Office in order to edit the downloaded file. Open the downloaded file and enter the translated text for each word or phrase in column for the new language. Then save this file to a location on your computer. Click **Upload XLSX** and select the file you just saved. Once the file is uploaded, mWater will show a popup box with the number of localizations applied. You may upload the file again if you need to edit the translations.

Figure 22. Adding the translation for a form in Microsoft Excel.

	A	B	C
1	Original Language	English	Español
2	English	My Water Survey	Mi Encuesta de Agua
3	English	Water Source	Fuente de Agua
4	English	What is the water source type?	¿Cuál es el tipo de fuente de agua?
5	English	Piped water	Agua entubada
6	English	Dug well	Pozo excavado
7	English	Borehole	Pozo
8	English	Other (please specify)	Otro (especificar, por favor)
9	English	Where is the source located?	
10	English	Inside the home	
11	English	Outside the home	
12	English	How long does it take to fetch water?	

The languages added in **Localize** will be available to users when performing a survey with that form via a dropdown language selection box. Notice in Figure 23 that only the questions that were provided with a Spanish translation are shown in Spanish, while the rest are in the base language of the survey.

Figure 23. Preview of My Water Survey with the language localizations applied to the first question.

mWater Portal
Forms
Sites
Groups
Reports
Sensors
Logged in as JillAtWH

My Water Survey

Design
Localize
Preview
Share
Deploy
Responses
Visualization
Activity
Sensors

Fuente de Agua
Español

¿Cuál es el tipo de fuente de agua?

- ☐ Agua entubada
- ☐ Pozo excavado
- ☐ Pozo
- ☐ Otro (especificar, por favor)
- ☐ Don't know

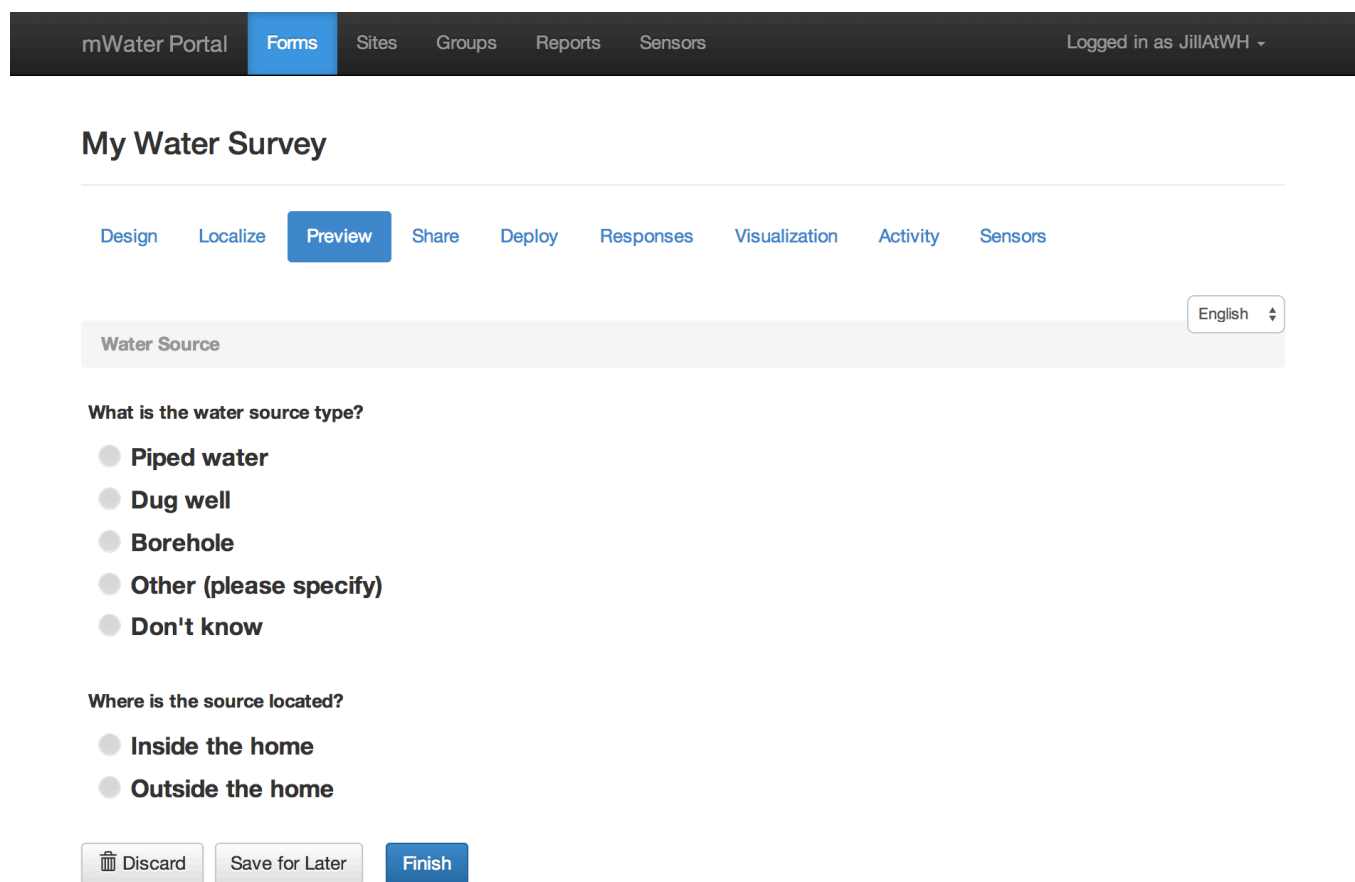
Where is the source located?

- ☐ Inside the home
- ☐ Outside the home

Discard
Save for Later
Finish

5. Preview a form

The **Preview** tab is where you can view a form the way that it will appear on a user's device. Notice that *Not Visible* questions do not appear in preview mode unless the conditions are satisfied. The form in preview mode is a working survey: you may answer questions, move to the next section or finish. However, no data is saved in preview mode. Also note that the languages added during Localization are available by clicking on the dropdown language selector at the right.



The screenshot shows the mWater Surveyor Portal interface. At the top is a dark navigation bar with 'mWater Portal' and 'Forms' (highlighted) on the left, and 'Sites', 'Groups', 'Reports', 'Sensors', and 'Logged in as JI11AtWH' on the right. Below this is a section titled 'My Water Survey'. Underneath is a horizontal tab bar with 'Design', 'Localize', 'Preview' (active), 'Share', 'Deploy', 'Responses', 'Visualization', 'Activity', and 'Sensors'. To the right of the tabs is a language dropdown menu set to 'English'. The main content area is titled 'Water Source' and contains two questions:

What is the water source type?

- ☐ Piped water
- ☐ Dug well
- ☐ Borehole
- ☐ Other (please specify)
- ☐ Don't know

Where is the source located?

- ☐ Inside the home
- ☐ Outside the home

At the bottom are three buttons: 'Discard' (with a trash icon), 'Save for Later', and 'Finish'.

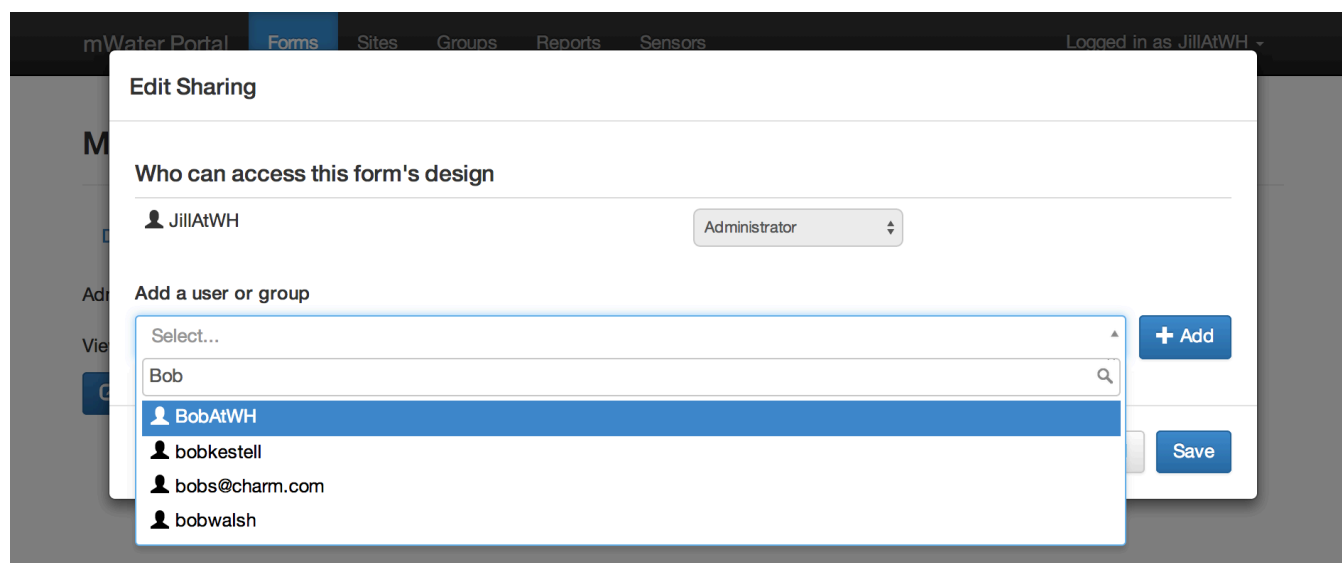
6. Share a form

In mWater, sharing a form means that you are allowing other users to view and work with the form. There are two levels of permissions with forms:

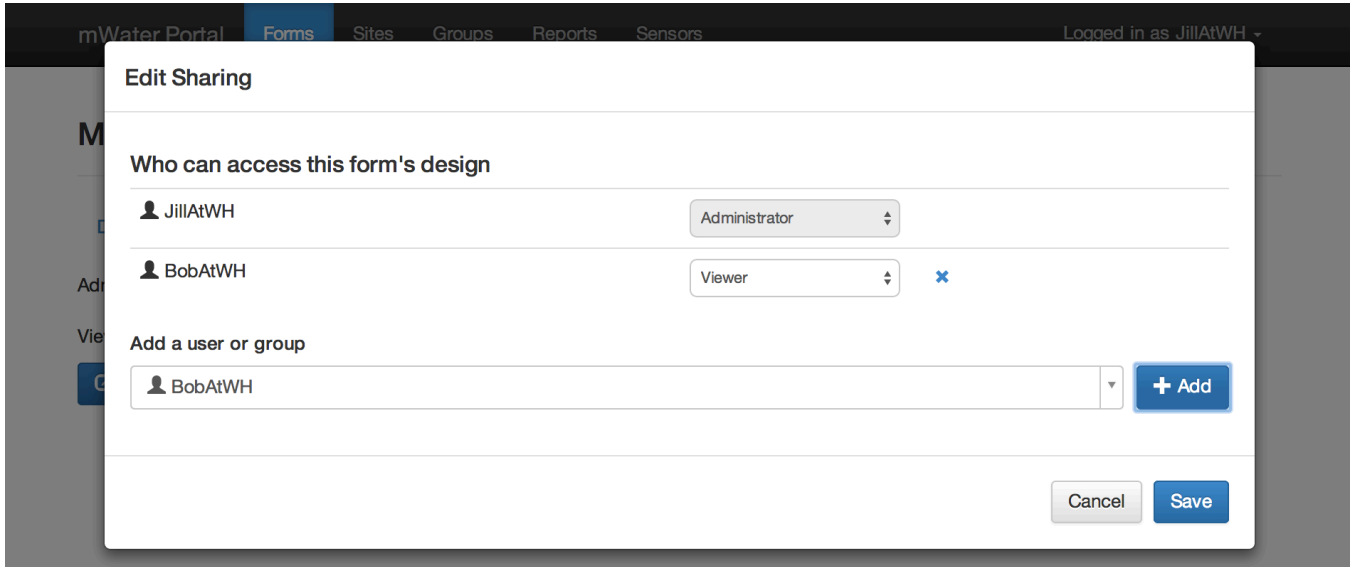
- **Viewer:** a user or group who can see the design of the form and duplicate it for their own use. *Form viewers can only see the questions in the form – not the responses coming in from a deployment.* Making someone a viewer is a safe way to share the design of your survey without sharing the results.
- **Administrator:** a user or group who can make changes to the form and create or edit deployments. Administrators can also see responses as they come in. Administrators are powerful and only those users who are working on the form design or deploying it for surveys should have this level of permission.

To share the design of a form, click on the **Share** tab in the form and click the **+ Add** button. Begin typing the name of the user or group into the *Select...* box. mWater will suggest names once you have typed the first few characters. Click on the name you are adding and click the **+ Add** button again.

Figure 24. Adding a user with whom the form will be shared.






When a new user or group is added, they are automatically assigned the role of viewer. In order to make this user or group an administrator, click on the dropdown box next to their name. Click **Save** once you are finished making changes in the Sharing window.





Edit Sharing



Who can access this form's design

 JillAtWH	Administrator	
 BobAtWH	Viewer	

Add a user or group

 BobAtWH



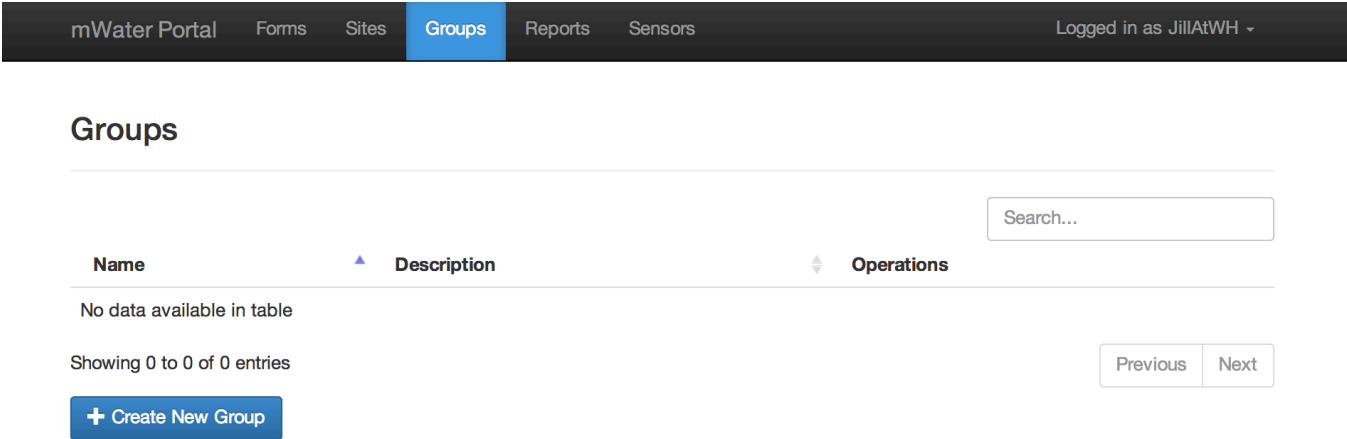
 

7. Groups

mWater allows you to create groups of users who can be assigned the same access or permissions. For example, you might want to create one group that includes everyone in your organization so that they will have access to all of your field data. Not all of these users will need to be collecting the data, so you might create a different group for the monitoring and evaluation team, who will have forms deployed to their accounts when they are working in the field. If your organization is very large, you might also want to create a group of administrators who can set up deployments, manage groups and fix problems. You do not have to use groups for these functions – you can add as many individual users to each role as necessary – but groups can make it easier to manage permissions within your organization.

To create a group, click on the **Group** tab at the top of the portal and then click **+ Create New Group**.

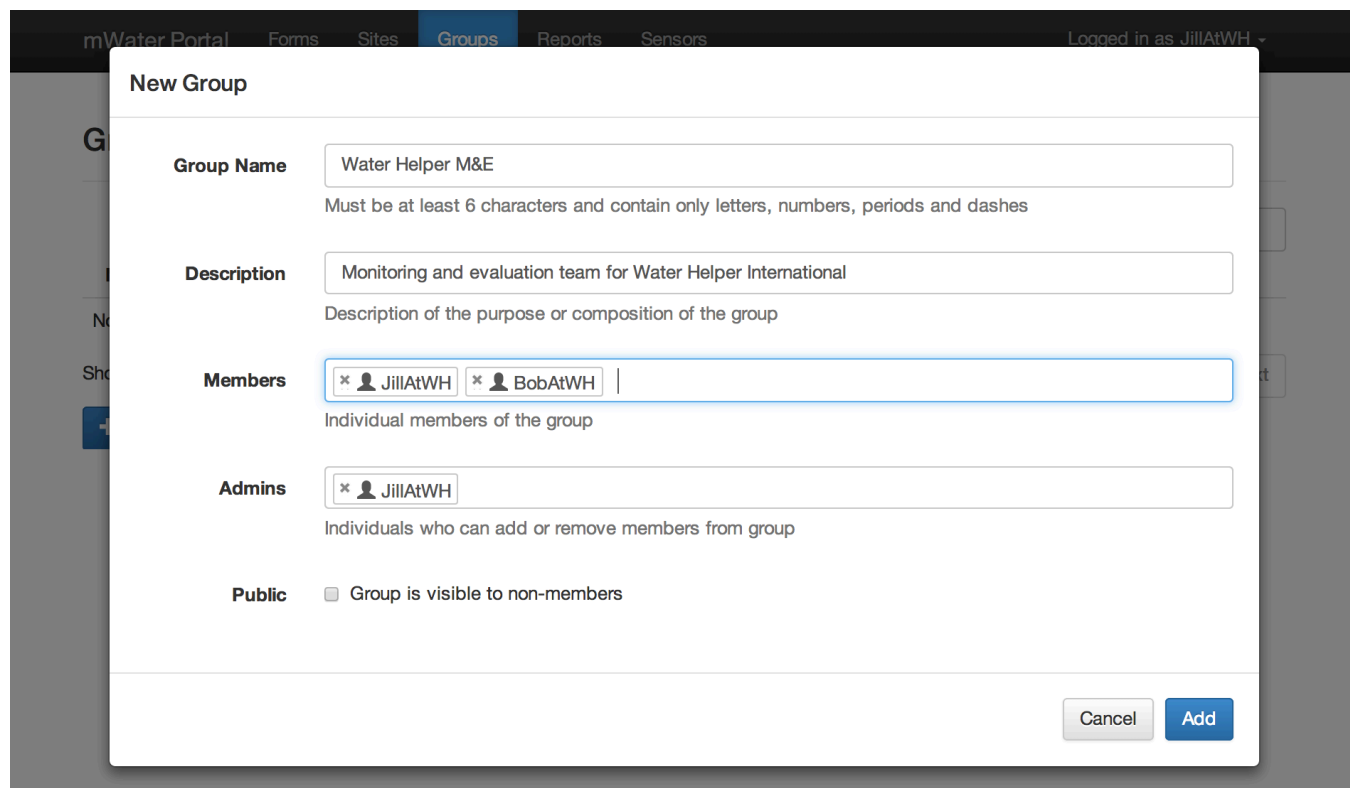
Figure 25. The Groups tab in the portal.



The New Group window allows you to set up a group. The same window appears when you click Edit on an existing group. This allows the group’s members to easily be changed when people enter or leave the organization. The options that can be set for groups include:

- **Group Name:** the name that will appear throughout the portal when the group is added to forms or given permissions. Keep this name as short as possible.
- **Description:** a longer name or explanation of the purpose of the group.
- **Members:** click in this text box and begin typing the name of the user to be added to this group. mWater will suggest names once you type a few letters. Click on the name you wish to add to the group. It is also possible to delete members from a group in this box.
- **Admins:** these are users who can make changes to a group. Admins can be individual users or other groups. Every group must have at least one Admin.
- **Public:** if this box is checked, any mWater user will be able to see the group. This means that any user could deploy a form to the group or create sites on behalf of the group. Use this option with caution. The default option for groups is private.

Figure 26. The New Group / Edit Group window.



The screenshot shows the 'New Group' window in the mWater Surveyor Portal. The window is titled 'New Group' and contains the following fields and options:

- Group Name:** A text box containing 'Water Helper M&E'. Below it, a note states: 'Must be at least 6 characters and contain only letters, numbers, periods and dashes'.
- Description:** A text box containing 'Monitoring and evaluation team for Water Helper International'. Below it, a note states: 'Description of the purpose or composition of the group'.
- Members:** A text box containing two user names: 'JillAtWH' and 'BobAtWH'. Below it, a note states: 'Individual members of the group'.
- Admins:** A text box containing one user name: 'JillAtWH'. Below it, a note states: 'Individuals who can add or remove members from group'.
- Public:** A checkbox labeled 'Group is visible to non-members' which is currently unchecked.

At the bottom right of the window are two buttons: 'Cancel' and 'Add'.

Special Group: Everyone All groups in mWater are created by users with one important exception: the group, Everyone, is identified with a different icon and includes all mWater users. Adding Everyone as a view on your form will allow any user to copy the form design or import individual questions from the question library.

8. Sites

Sites are unique places on the earth that can be monitored over time by adding new surveys, water tests or status updates. Sites do not need to have unique locations because the mWater server assigns each new site a unique ID number. Every mWater user has 50 unique ID numbers pre-assigned to them that they may use when operating in offline mode (without an internet connection). Once the user has an internet connection again the mWater server automatically assigns new ID numbers to replace the ones that have been used. By using sites in surveys, you can ensure that enumerators visit the same place when performing a follow-up survey and field workers will be able to see all of the previous surveys conducted at that site.

8.1. Site types available in mWater

The current mWater platform is designed to monitor water and sanitation systems and this purpose is reflected in the types of sites that are available. In the future, we may include other types of sites if new programs and clients require them. The list of available site types and subtypes is fixed, meaning that new types can only be added with significant programming effort. For this reason, the current list was chosen carefully based on input from WaterAid, Water.org and the UNICEF / WHO Joint Monitoring Programme for Water and Sanitation. Additional information can be added to sites by using Attributes, which apply only to certain site types or subtypes. Finally, mWater allows the creation of Custom Fields that can appear on the site page within the app. The site types currently available in mWater are:

- Water Point
- Sanitation Facility
- Household
- Community
- Health Facility
- Educational Facility

The most up-to-date list of site types, subtypes and attributes is available in the following document:

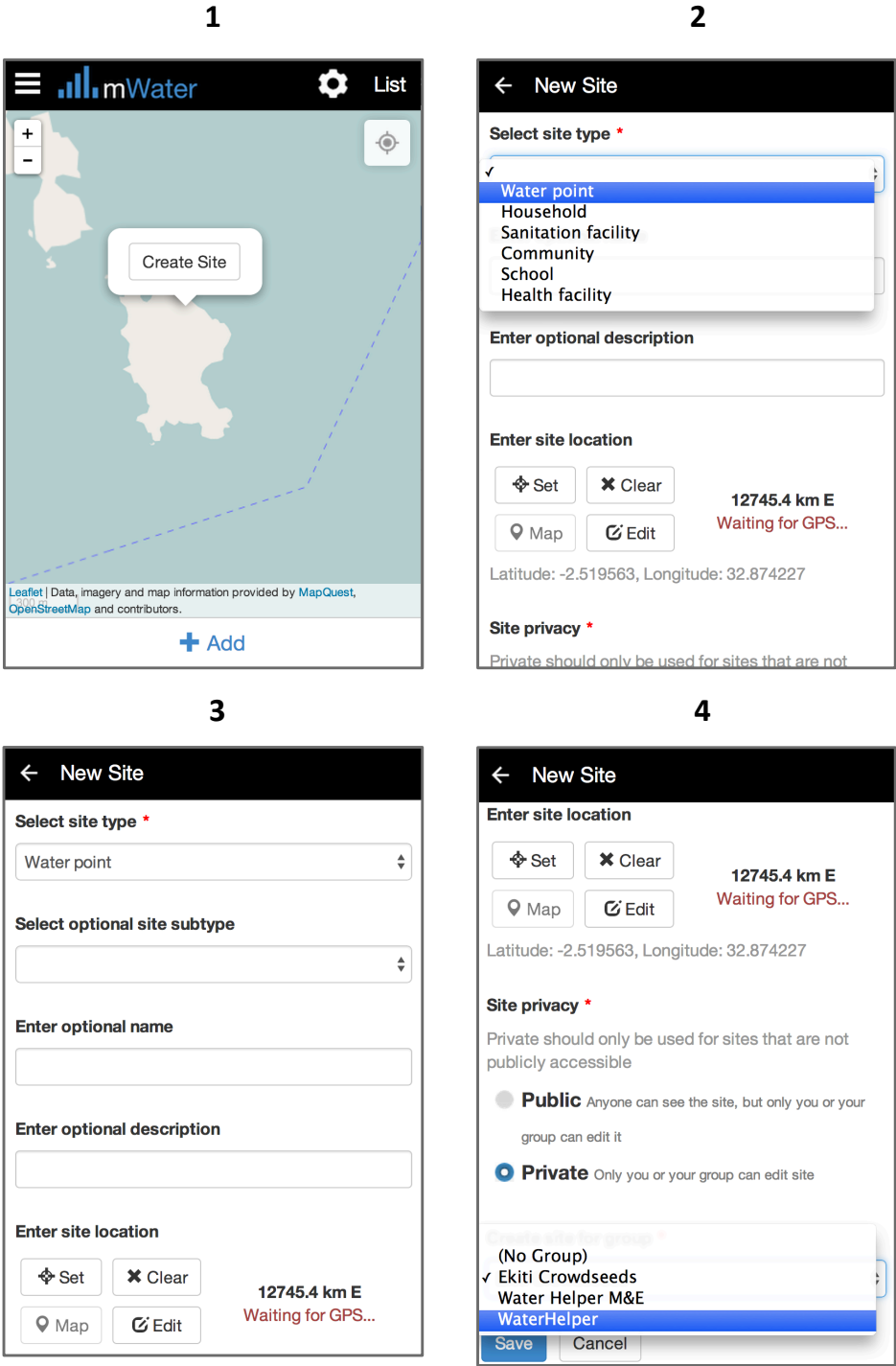
https://accounts.google.com/AccountChooser?Email=jfeighery@gmail.com&continue=https%3A//docs.google.com/spreadsheets/d/1FFpIpOldR8yB5v8WlxvZuUjHJsEcFhK_3qGIsJiQk/edit%3Fusp%3Ddocslist_api

8.2. Site creation in the mWater App

The creation of new sites is generally done in the field by users of the mWater App. Sites may also be imported via the Portal but this advanced feature is not covered in this manual. In order to understand how the App user creates and adds data to sites, the site creation process is covered briefly here.

An App user can create a site by clicking the **+ Add** button or by right-clicking (or long-pressing on a touchscreen device) at a location on the map (Figure 27, panel 1). In the New Site page (panel 2) the user must select a Site Type from the dropdown list. Next, an optional Subtype may be added, as well as the name, description and location (panel 3). The privacy level (panel 4) is a required question and can either be public (any mWater user can see and add data to the site) or private (only the user and group can see the site). The final question concerns the group the site is created on behalf of (panel 4). If a site is created on behalf of a group, all members of that group will be able to view and edit the site data.

Figure 27. Site creation process in mWater App.

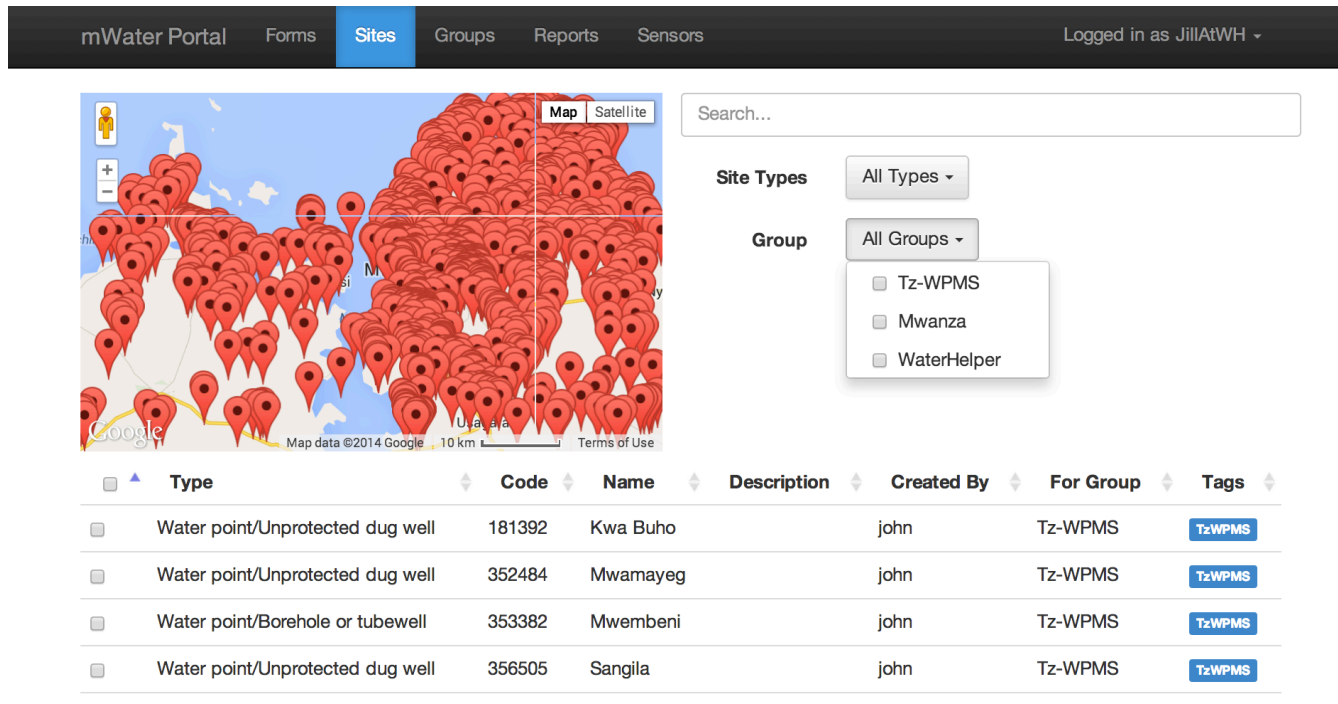


8.3. Managing sites within the Portal

The **Sites** tab in the Portal provides tools to view, edit and filter sites. At the top of this tab are several ways to select sites, which are shown in the list at the bottom. The list contains only sites

that are visible in the map show at the top left. Therefore, it is possible to select sites only from a certain geographic region by zooming and scrolling on the map.

Figure 28. The Site management tab.



Type	Code	Name	Description	Created By	For Group	Tags
Water point/Unprotected dug well	181392	Kwa Buho		john	Tz-WPMS	TzWPMS
Water point/Unprotected dug well	352484	Mwamayeg		john	Tz-WPMS	TzWPMS
Water point/Borehole or tubewell	353382	Mwembeni		john	Tz-WPMS	TzWPMS
Water point/Unprotected dug well	356505	Sangila		john	Tz-WPMS	TzWPMS

Clicking on a site on the map limits the list to only that site; click anywhere else on the map to unselect that site. Sites may be also located by typing in the Search box on the right, which can search by name, description or ID number. In order to filter sites so that only one particular type or one group's sites are selected, click on the dropdown boxes below the Search area.

Figure 29. Filtering sites by group.

mWater PortalForms**Sites**GroupsReportsSensors

Logged in as JillAtWH

Map

Satellite

Map data ©2014 Google

10 km

Terms of Use

Search...

Site Types

All Types

Group

WaterHelper

☒ WaterHelper

Type	Code	Name	Description	Created By	For Group	Tags
<input type="checkbox"/> Water point/Unprotected dug well	157469	Shallow Well A		BobAtWH	WaterHelper	
<input type="checkbox"/> Water point/Piped into dwelling	157483	Household Piped Water C		BobAtWH	WaterHelper	
<input type="checkbox"/> Water point/Unprotected spring	157476	Spring B		BobAtWH	WaterHelper	

10 records per page1 - 3 of 3

Previous1Next

Import Sites

Sites may also be filtered by any combination of types and subtypes by clicking on the Site Type dropdown box.

Figure 30. Selecting Sites by type.

mWater PortalForms**Sites**GroupsReportsSensors

Logged in as JillAtWH

Map

Satellite

Map Data

100 m

Terms of Use

Search...

Site Types

Unprotected dug well

Water point

☐ Water point (general)

☐ Protected dug well

☒ Unprotected dug well

☐ Borehole or tubewell

☐ Protected spring

☐ Unprotected spring

☐ Rainwater

☐ Surface water

☐ Piped into dwelling

☐ Piped into yard/plot

☐ Piped into public tap or basin

Group

Type	Code	Name	Description	Tags
<input type="checkbox"/> Water point/Unprotected dug well	157469	Shallow Well A		

10 records per page1 - 1 of 1

Previous1Next

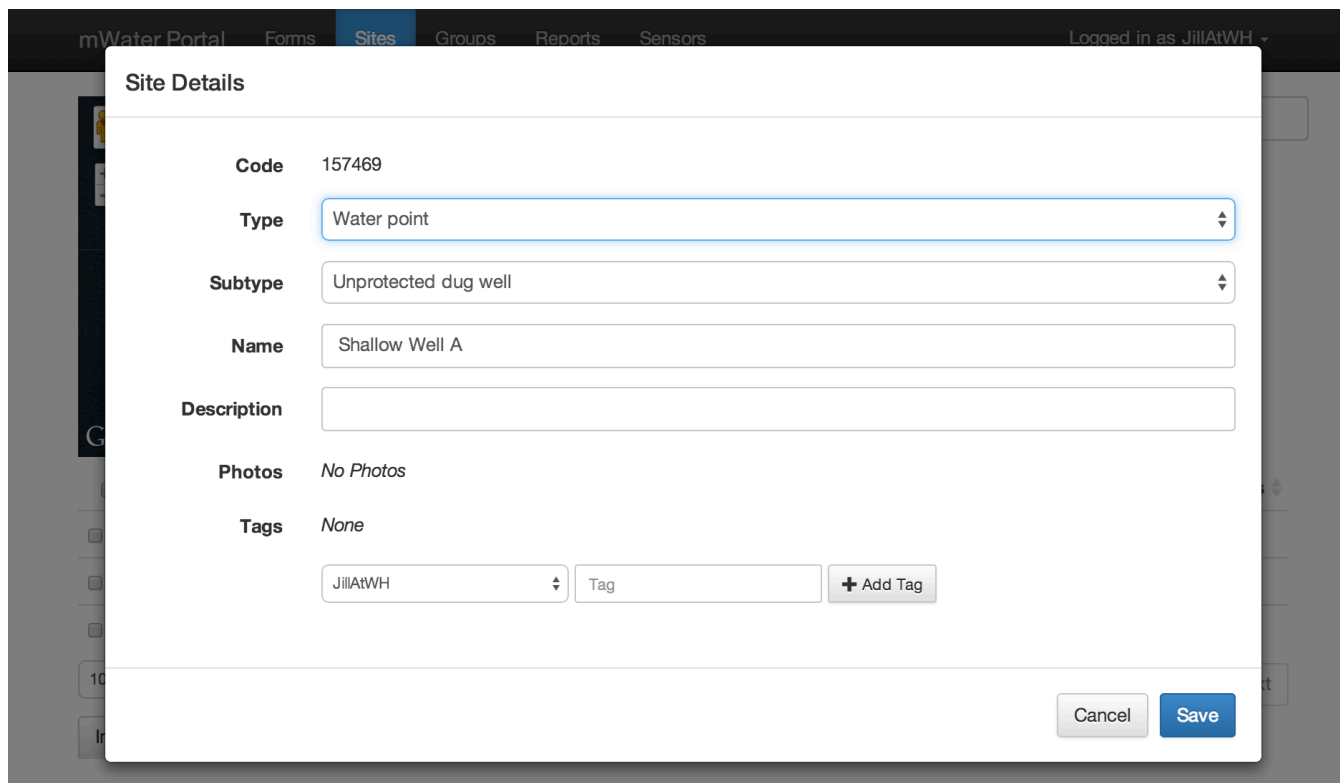
Import Sites

8.4. Editing sites in the Portal

If you have admin privileges for the group that a site was created on behalf of, you may click on the site name in the list and edit the properties of the site. This is useful way to correct information coming in from field surveys, such as misspelled names or incorrect site types.

Tags Another feature, currently only available through the Site tab of the Portal, is site tagging. A tag is some text that can be used to further identify a site. One example of where tags might be useful is when a team is to survey only a sample of all the sites in a region. They can also be used to quickly find certain sites again by typing the tag name into the Search box in the Sites tab. Tags will be implemented more extensively in an upcoming version of mWater.

Figure 31. Editing site details after selecting from the site list.



The screenshot shows the 'Site Details' modal form in the mWater Portal. The form is titled 'Site Details' and contains the following fields:

- Code:** 157469
- Type:** Water point (dropdown menu)
- Subtype:** Unprotected dug well (dropdown menu)
- Name:** Shallow Well A (text input)
- Description:** (empty text input)
- Photos:** No Photos
- Tags:** None

At the bottom of the form, there is a dropdown menu showing 'JillAtWH' and a text input field with the word 'Tag'. To the right of the text input is a button labeled '+ Add Tag'. At the bottom right of the modal are two buttons: 'Cancel' and 'Save'.

9. Deployments

The **Deploy** tab is where forms are sent to users who will collect data. Each form can have an unlimited number of deployments. This is useful when the same form needs to be deployed to different regions or to different groups of enumerators. Incoming data can be viewed and downloaded for the entire form or for only one particular deployment.

It is helpful to define some key concepts in the deployment process:

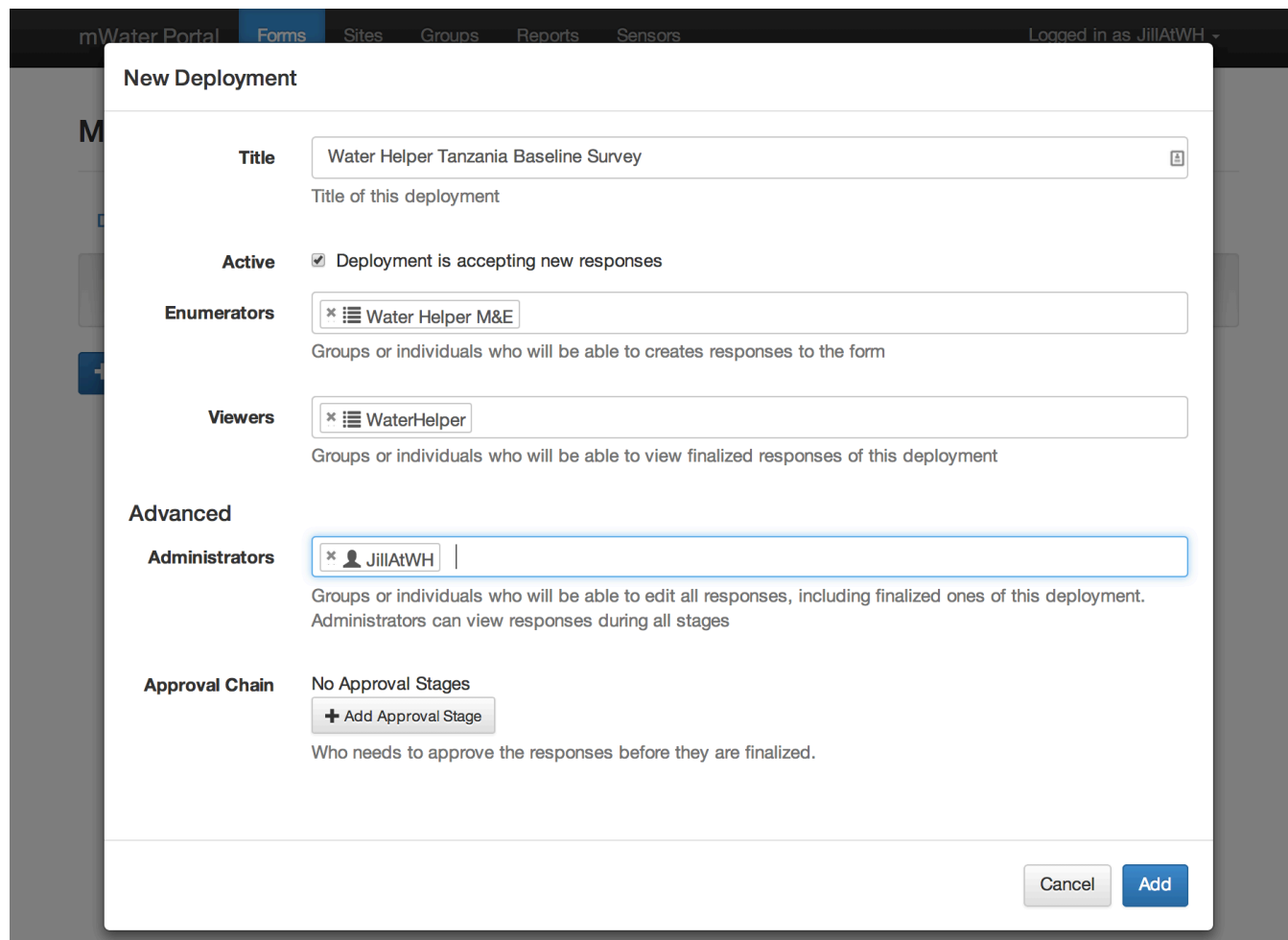
- **Response:** the complete set of answers to a single form that has been filled out by an enumerator in the field.
- **Draft response:** partially completed form that has not yet been submitted.
- **Submitted response:** completed response (enumerator has clicked 'Finish' in the form)
- **Final response:** all approvals have been given for the response

To create a new deployment, click on **+ Add Deployment** in the **Deploy** tab for the form you are using. The following options are available for deployments:

- **Title:** this title will be used to select the deployment when viewing data. Keep this name as short as possible.
- **Active:** this box is initially checked, meaning that as soon you click the **Add** button, the form will be sent to the selected users. Uncheck this box if you are setting up the deployment but are not ready to begin collecting data. This is also useful when data collection for a particular deployment is complete and the users no longer need access to the form.
- **Enumerators:** these are the individual mWater users or groups of users who will receive the form on their devices and collect data.
- **Viewers:** users or groups who will be able to see a result from the form, once it has been approved. Only Viewers will see forms that were attached to a site when they view the site page in the mWater App.

- **Administrators:** users or groups who can view responses at any stage of the approval process (even when they are incomplete or in draft form). Administrators may also edit and approve a response at any stage of approval, allowing them to bypass the normal approval chain.
- **Approval chain:** list of users or groups who must approve responses in this deployment.

Figure 32. The New Deployment / Edit Deployment Window.



New Deployment

Title Water Helper Tanzania Baseline Survey
Title of this deployment

Active ☒ Deployment is accepting new responses

Enumerators * Water Helper M&E
Groups or individuals who will be able to create responses to the form

Viewers * WaterHelper
Groups or individuals who will be able to view finalized responses of this deployment

Advanced

Administrators * JillAtWH
Groups or individuals who will be able to edit all responses, including finalized ones of this deployment. Administrators can view responses during all stages

Approval Chain No Approval Stages
+ Add Approval Stage
Who needs to approve the responses before they are finalized.

Cancel Add

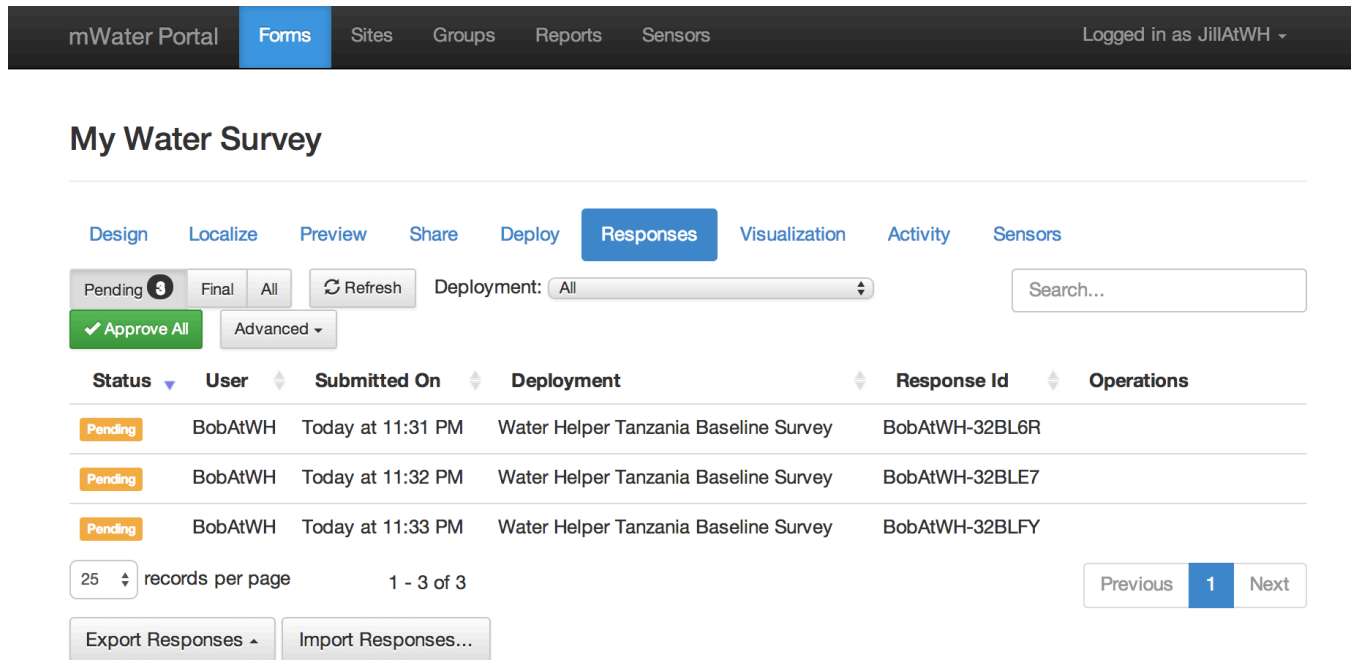
10. Viewing and approving real-time survey data

All data recorded by mWater users is synchronized in real-time with the server whenever there is an internet connection available. The **Responses** tab is the location where incoming survey responses can be viewed and approved. The data can also be downloaded in CSV format for further analysis.

The responses that a user sees when logged into the Portal depend on the permissions set for the deployment. Administrators will see all responses at any level of the approval chain, including drafts still being completed on the users' devices. Individuals in the approval chain will see responses that are ready for their review and approval. Viewers can only see final responses.

The **Responses** tab shows a list of all visible responses to a form and provides some tools for filtering and searching for responses. These tools include:

- Filter buttons to switch between **Pending**, **Final** or **All** responses.
- The **Refresh** button updates the display to include responses that have come in since this page was opened.
- The **Deployment** dropdown, which is normally set to show *All* but may be changed to show only responses from a single deployment.
- The **Search** box, which allows responses to be filtered by searching for terms.
- The **Approve All** button is used to approve all of the pending responses at once.
- The **Advanced** menu, which currently has only one option: to randomize the list of responses to help avoid bias.
- Choose the number of **records per page** that are displayed.
- **Export** responses shown as a CSV file. All responses matching the current display criteria, including filters applied above, will be included in the export.
- **Import** responses to a form. This advanced feature is not covered in this manual. Contact mWater for support with importing responses.

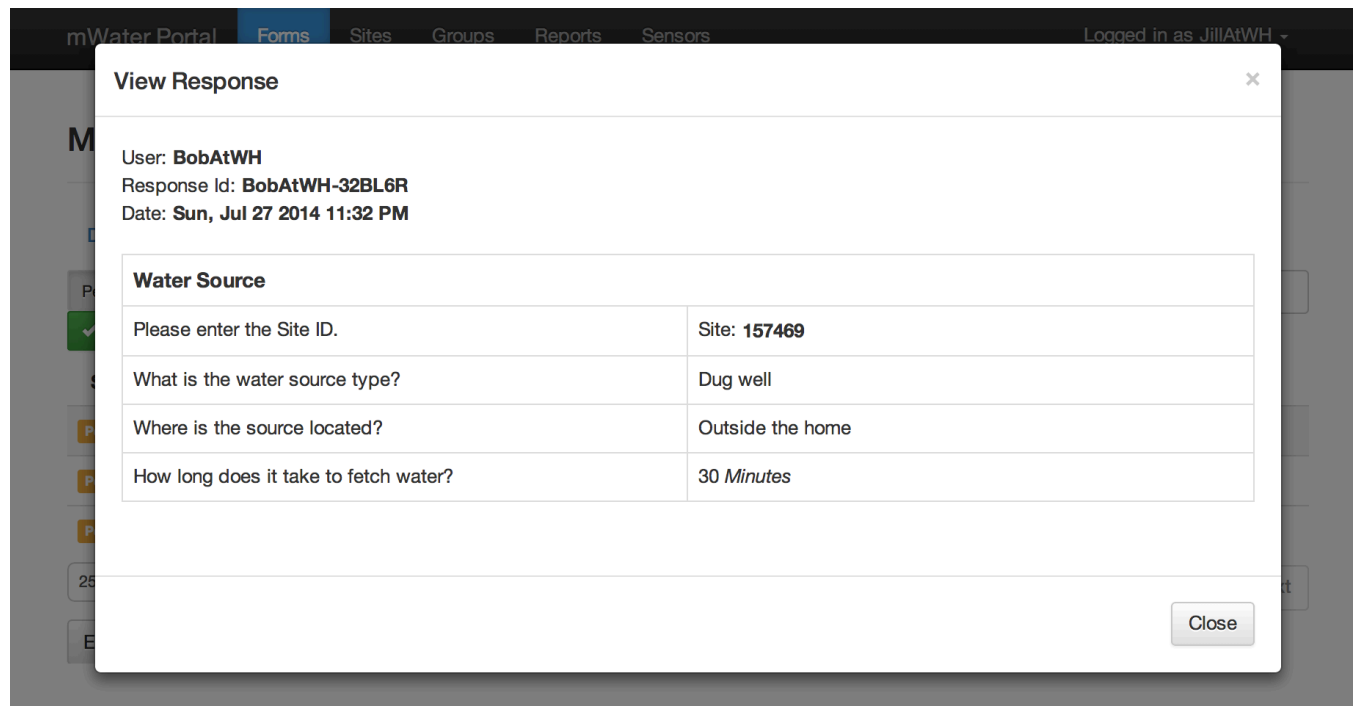
Figure 33. The Responses tab for a form.

The screenshot shows the 'Responses' tab in the mWater Surveyor Portal. The top navigation bar includes 'mWater Portal', 'Forms' (active), 'Sites', 'Groups', 'Reports', 'Sensors', and 'Logged in as JillAtWH'. Below this, the 'My Water Survey' section has tabs for 'Design', 'Localize', 'Preview', 'Share', 'Deploy', 'Responses' (active), 'Visualization', 'Activity', and 'Sensors'. The 'Responses' tab contains a filter section with 'Pending' (3), 'Final', and 'All' buttons, a 'Refresh' button, a 'Deployment' dropdown set to 'All', and a 'Search...' input field. There is also an 'Approve All' button and an 'Advanced' dropdown. Below the filters is a table with columns: Status, User, Submitted On, Deployment, Response Id, and Operations. The table lists three pending responses from 'BobAtWH' for the 'Water Helper Tanzania Baseline Survey'. At the bottom, there are controls for '25 records per page', '1 - 3 of 3', 'Export Responses', and 'Import Responses...'. A pagination bar shows 'Previous', '1' (selected), and 'Next'.

Status	User	Submitted On	Deployment	Response Id	Operations
Pending	BobAtWH	Today at 11:31 PM	Water Helper Tanzania Baseline Survey	BobAtWH-32BL6R	
Pending	BobAtWH	Today at 11:32 PM	Water Helper Tanzania Baseline Survey	BobAtWH-32BLE7	
Pending	BobAtWH	Today at 11:33 PM	Water Helper Tanzania Baseline Survey	BobAtWH-32BLFY	

10.1. Viewing an individual response

Click on one of the rows in the **Responses** list to view the entire response, including the questions and answers. You can scroll down through the entire survey response in this window. Close using the **X** at top or **Close** button at the bottom when finished viewing.

Figure 34. Viewing an individual survey response.

The screenshot shows the mWater Surveyor Portal interface. A modal window titled "View Response" is open, displaying the following information:

User: **BobAtWH**
Response Id: **BobAtWH-32BL6R**
Date: **Sun, Jul 27 2014 11:32 PM**

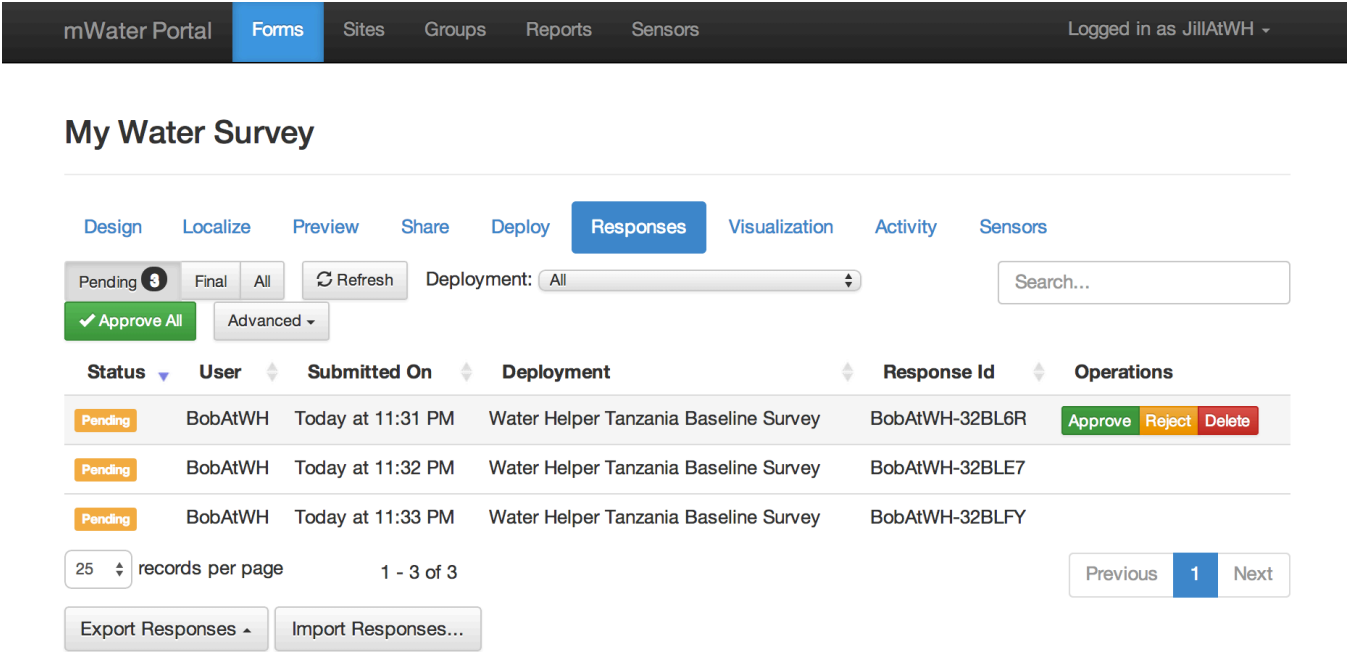
Water Source	
Please enter the Site ID.	Site: 157469
What is the water source type?	Dug well
Where is the source located?	Outside the home
How long does it take to fetch water?	30 Minutes

A "Close" button is located at the bottom right of the modal.

10.2. Approving a response

Hover with the mouse cursor over one of the responses and buttons appear at the right side to perform operations on this response. Selecting **Approve** will send the response to the next level in the approval chain (or make the response final if this is the final level in the approval chain).

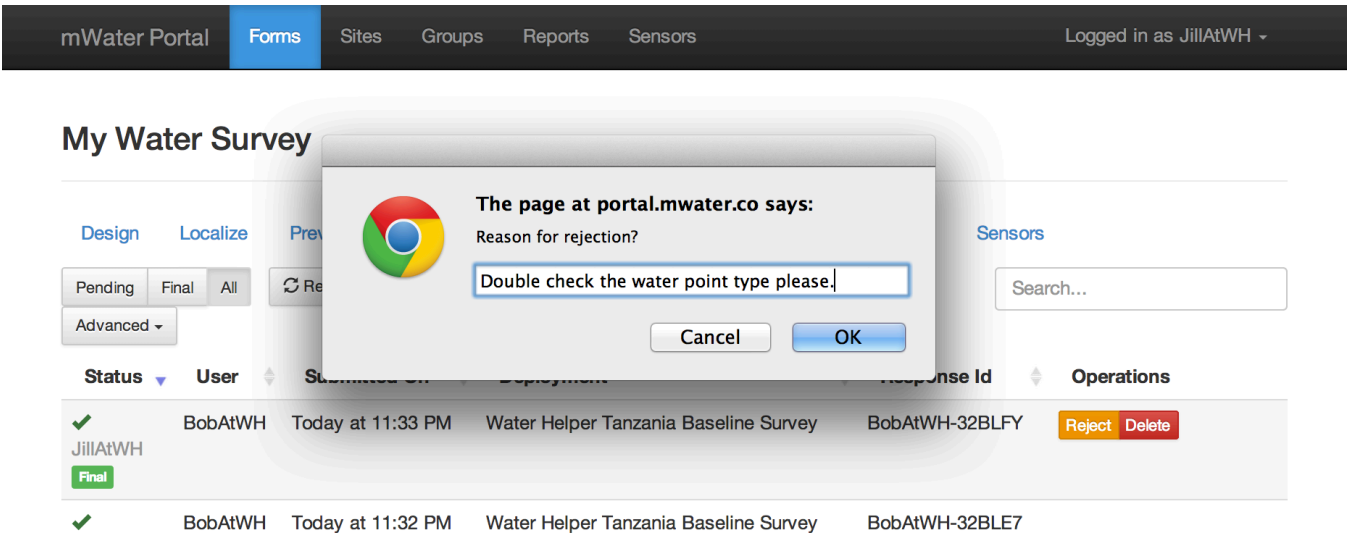
Figure 35. Performing operations in the Responses tab.



10.3. Rejecting a response

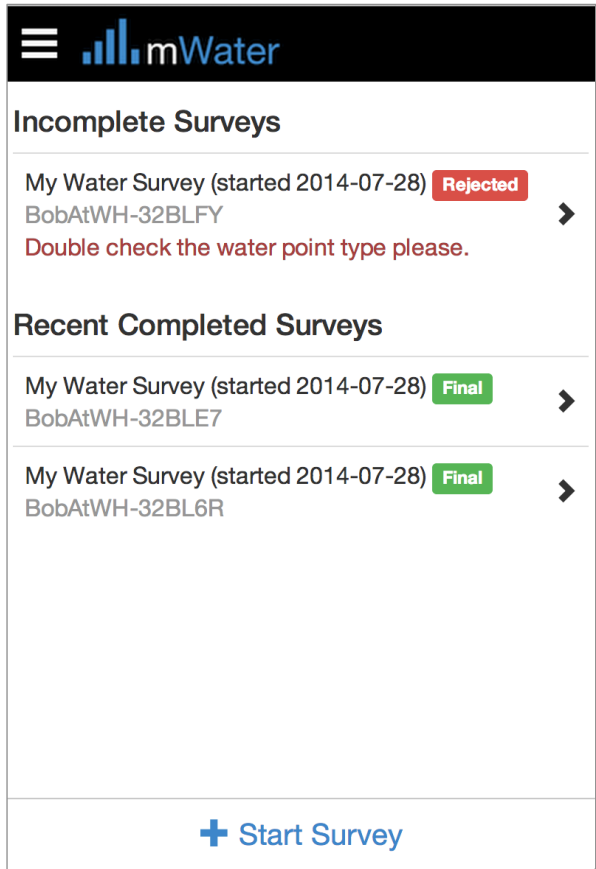
Deployment administrators have the power to **Delete** a response if it was received in error. However, the more common method to resolve problems is to **Reject** a response. When a response is rejected, a popup window offers the chance to provide a reason for rejection.

Figure 36. Rejecting a response.



This reason will be displayed next to the rejected response when the enumerator views their list of surveys in the mWater App. Once the enumerator corrects the problem, the response may be submitted again and it will appear again at the bottom of the approval chain.

Figure 37. Rejected response as it appears in the mWater app.

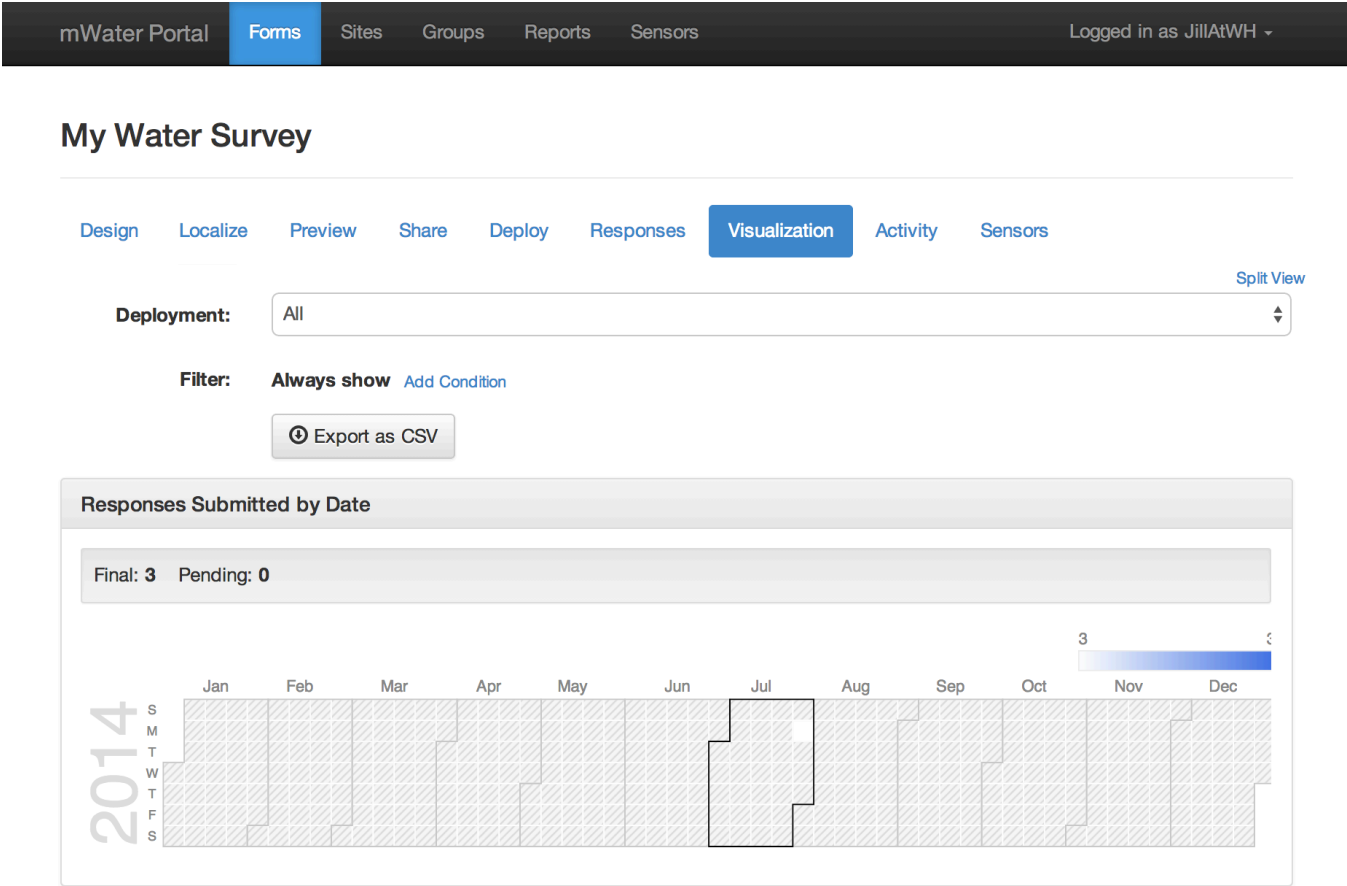


11. Visualizing Data

In addition to viewing survey responses in a list format, the mWater Portal includes a **Visualization** tab to view basic summary statistics on final responses. This tool is useful for getting an overview of the type of data coming in and also to detect trends that might need to be addressed in the survey.

The **Visualization** tab includes tools for selecting the **Deployment** to view and also provides a means to filter the responses based on the answers to one or more questions. The **Filter** works in exactly the same way as conditions do in a form (see Section 3.7). One example of how to use the filter would be if you wanted to view the responses from women respondents separately from men. More than one condition may be set.

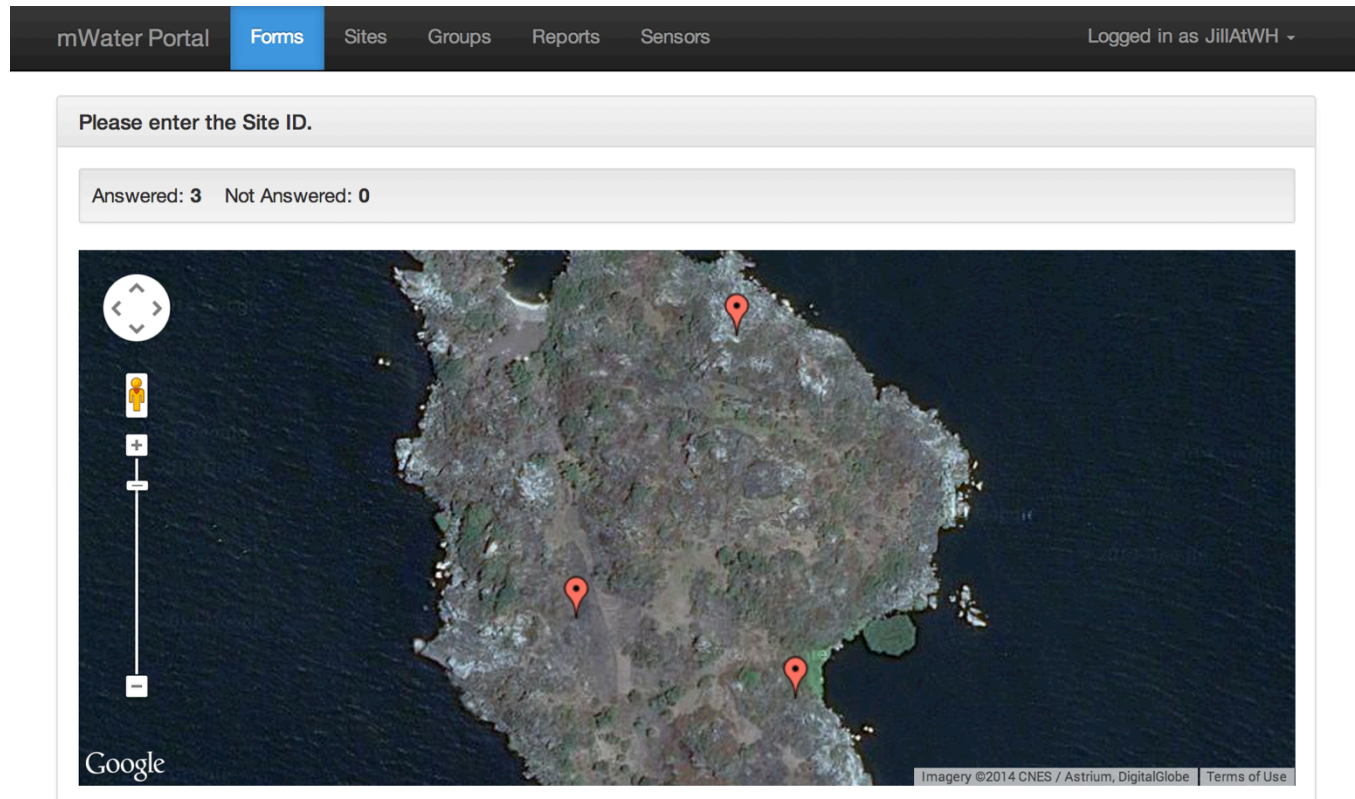
Figure 38. The Visualization tab.



The very first item displayed in Visualization is not a question in the form, but rather a calendar view of when responses were submitted. The darker the blue color on a particular day, the more responses were submitted on that day.

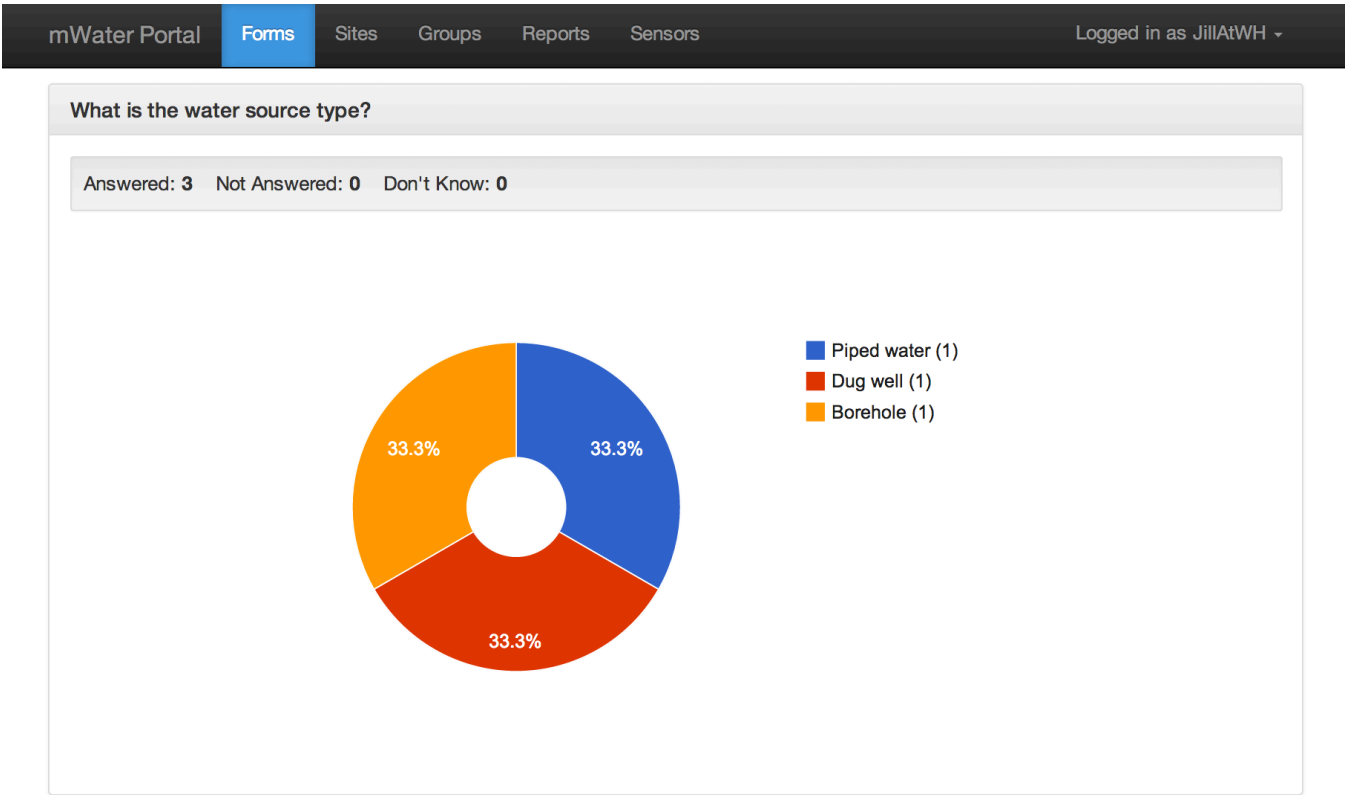
Each question is automatically assigned a visualization that is most suited to that type of question. For example, Site ID or location questions produce a map with pins for each location.

Figure 39. Visualization of an mWater Site or location type question.



Dropdown or radio questions that allow only one single response are shown as donut (or circle) graphs. Numeric questions display frequency charts and multi-check questions with more than one answer possible display bar graphs.

Figure 40. A radio button question displayed in the Visualization tab.

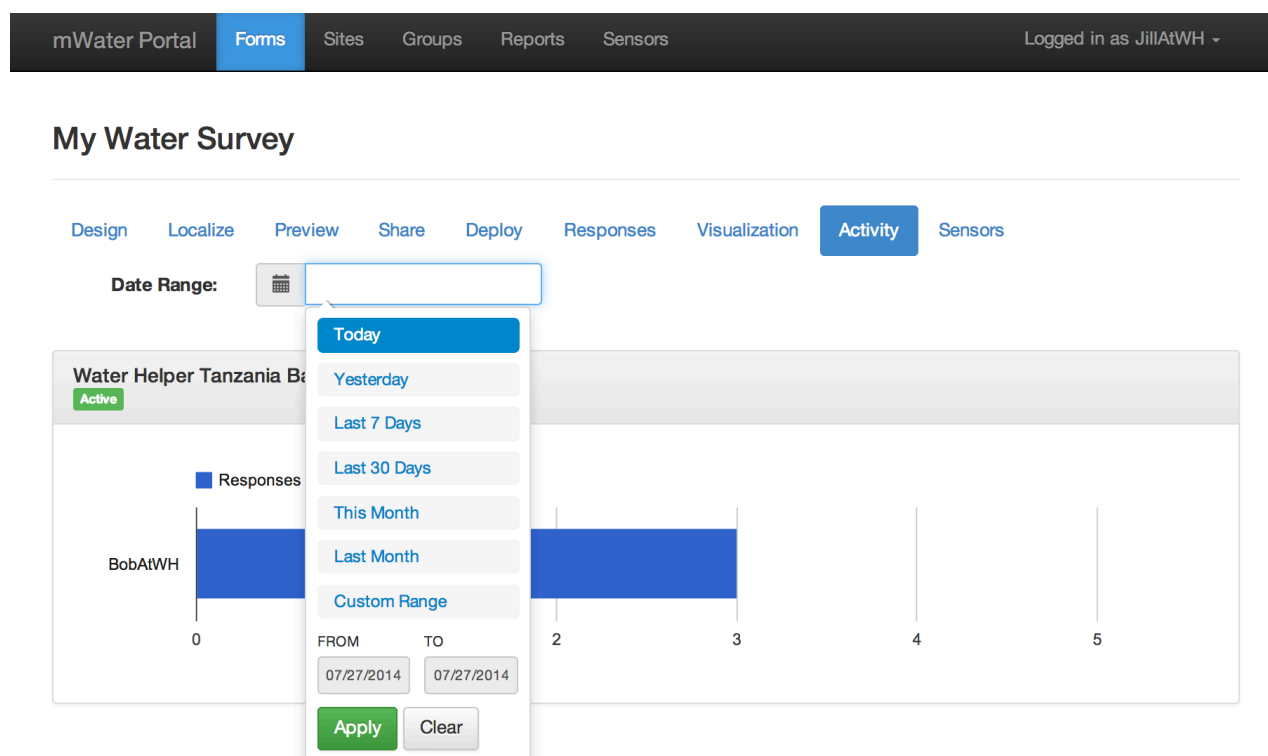


12. Monitoring User Activity

When conducting a survey, it is often useful to monitor how many responses have been submitted by each enumerator. This can help identify problems before they result in poor results or loss of data. Often there are very valid reasons that one enumerator submitted fewer responses than the group. For example, the enumerator may be in a sparsely populated region with long travel times between households. Finding these problems early in the survey can help to identify enumerators who need more resources or additional training. The data can also be used to modify the sampling plan to suit realities on the ground.

The **Activity** tab provides a simple bar graph to view how many responses have been submitted by each user in a given deployment. Use the date range dropdown to select only the most recent data of interest.

Figure 41. Viewing the number of responses by user in the Activity tab.



13. Roles and Permissions in mWater

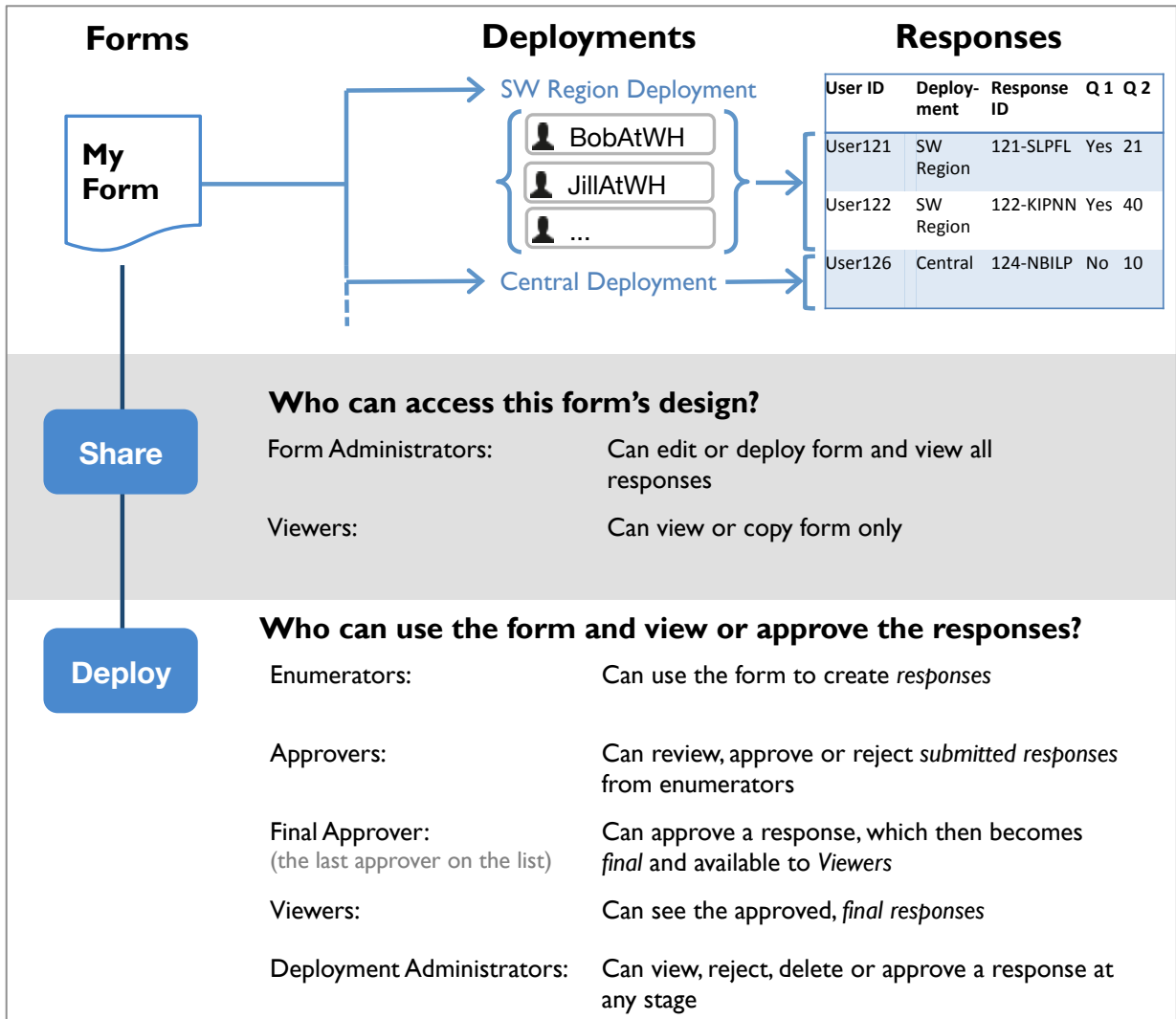
The mWater platform was designed to allow organizations to safely share the forms they use without exposing private data collected from individuals. In order to use the system properly it is important to understand what roles are available for different types of users. When you create and deploy a form, you will need to set permissions for these users. There are different sets of permissions for form design and form deployment. A graphical overview of these permissions is provided in **Error! Reference source not found.** They are managed from the following tabs in the Portal:

Share control who can access the form's design.

Deploy control who can use the form and view or approve the responses.

The remaining sections in this chapter provide details on how to use the Share and Deploy tabs to manage who can view and edit your forms and your data.

Figure 42. Graphical overview of permissions for forms.



13.1. Form Design Permissions ([Share](#))

When you create a new form, you are by default an **administrator**. Since an administrator is the only person who can edit or delete the form, there must always be at least one administrator. As you create and edit the form, you probably want to share it with other members of your team who are involved with survey design. For someone to be able to edit the form, they must be made an administrator. Only current administrators can add new administrators.

To allow a user or group to see your form but not edit it, add them as a **viewer** in the Share tab. Viewers can see forms in the Preview mode only. A viewer cannot deploy a form, but they are

allowed to **Duplicate** it and then deploy it. It is important to remember that viewers in the Share tab can only see the design of the form, not the data that you collect.

13.2. Form Deployment Permissions (**Deploy**)

When you deploy a form, any form administrator (set up in the Share tab) will be able to make changes to the deployment settings. The **enumerators** are users who will see the form on their device and they will be able to submit responses. In a deployment, **viewers** are users who can see the responses for the form. Viewers can only see responses that are final, meaning that all approvals have been made in the approval chain. If there is no approval chain, viewers can see responses as soon as the enumerators submit them. For forms that have a site question, the **viewer** also will see the response listed under surveys on the site page for the attached site. If you would like to make your responses public after your organization has approved them, set up an approval chain and then add the group **Public** as a viewer.

Deployment **administrators** have super powers when it comes to managing responses: they can review and edit responses at any stage in the approval chain. They can also approve or reject responses at any stage. Use this power with caution as it allows someone to bypass the normal approval process. In a deployment, administrators are optional.